NOVEMBER/
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The Winemaking Review
PRACTICAL WINERY

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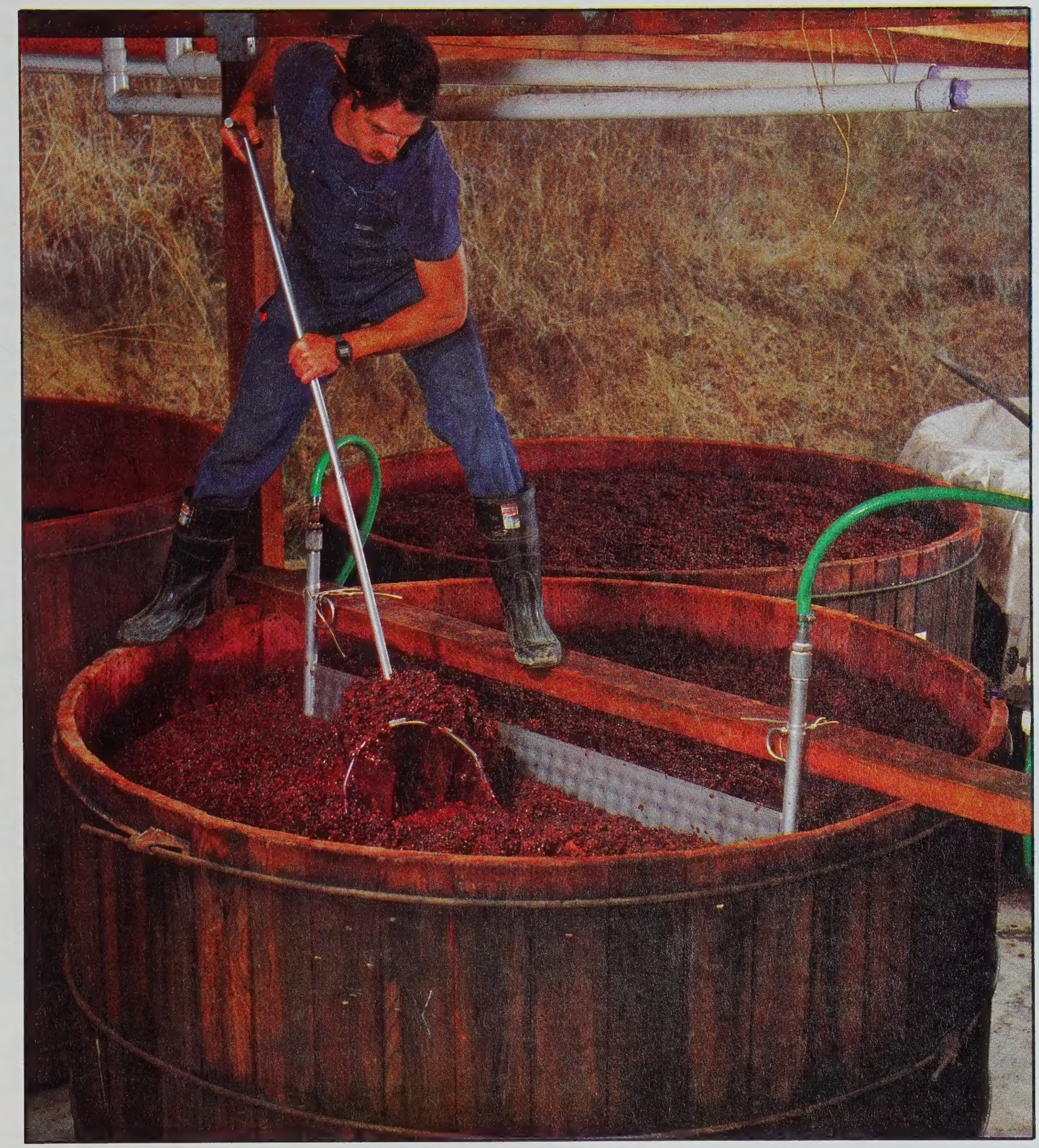
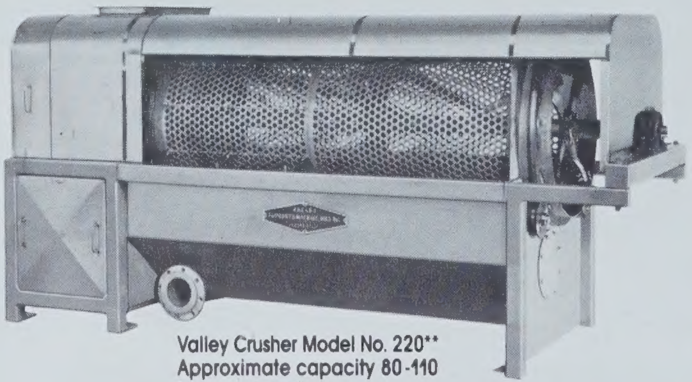


PINOT NOIR

What is IN a Wine?
By Dr. Richard G. Peterson



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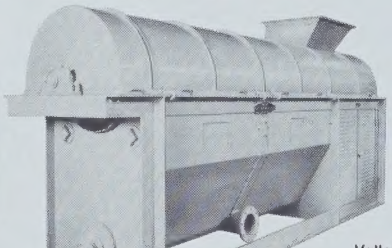

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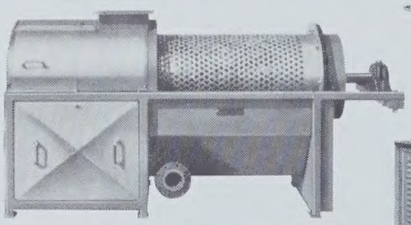

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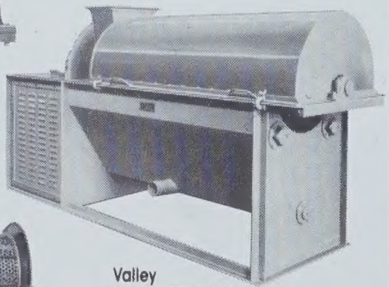

Valley Crusher Model 40
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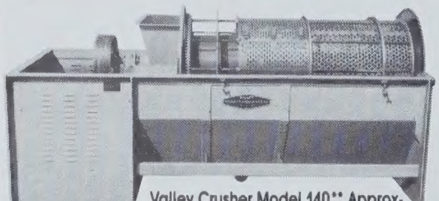

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*Capacities given vary depending on variety and condition of grapes.

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The Winemaking Review
PRACTICAL WINERY

NOVEMBER/DECEMBER 1983 VOLUME IV, NO. 4

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COVER PHOTO: Stephen Test punches the cap of Pinot Noir at Domaine Laurier, Forestville, CA. (Photo by J. Michael Kanouff)

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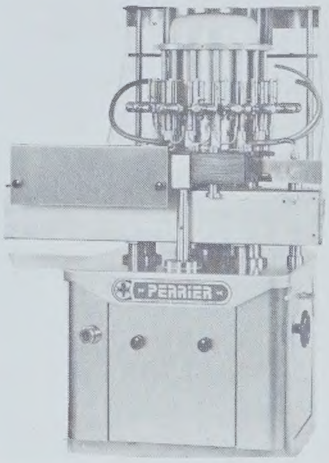

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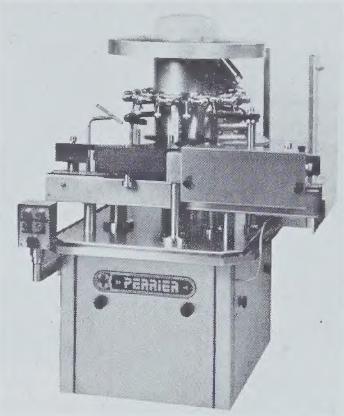

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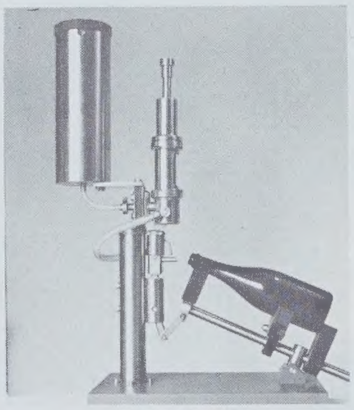

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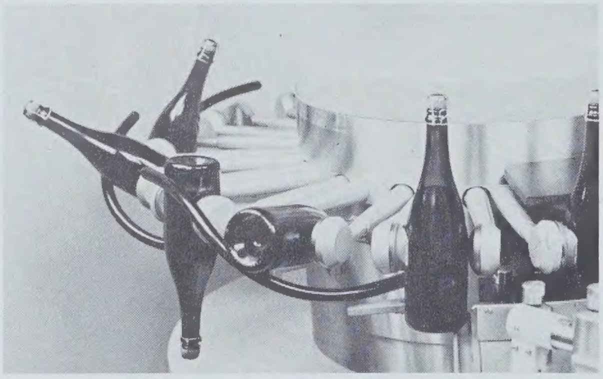

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LETTERS TO THE EDITOR

Dear Editor:

I want to express my appreciation from all of us here at Callaway Vineyard and Winery for your recent comments regarding Steve O'Donnell's death in July. Your editorial seemed to capture and then detail Steve's real energy and enthusiasm toward wine and food combinations, which he constantly experimented with, not only here, but at home, where he shared many unique dishes and wines with us.

We feel very good about the dedication in Steve's memory of your first wine and food column and hope it proves to be a useful tool to your readers.

Sincerely,
Dwayne Helmuth, Winemaker
Callaway Vineyard & Winery

Dear Editor:

I wish to comment on Bruce Rector's Q&A column in the July/August edition in regard to SO_2 testing. True, both the Ripper and the vacuum aspiration methods for free SO_2 measure the acid-released free SO_2, not the molecular. A spectrophotometer is necessary for enzymatic determination of molecular SO_2. Bruce suggested that due to the discrepancy between the molecular and the acid-released free SO_2, that running a free SO_2 on a red wine by the Ripper method was satisfactory.

The problem with the Ripper versus the vacuum method for free SO_2 has nothing to do with acid-released/molecular fractions, nor with the difficulty in seeing the endpoint. The main problem is that tannins and pigments bind iodine. Thus, in a free SO_2 determination by Ripper, you are titrating the phenolics (tannins and pigments) as if they were SO_2, resulting in a significant increase in the result over a method (such as vacuum aspiration) that measures acid-released free SO_2 independent of phenolic content.

When red wines are tested (whites have much lower phenolic levels), this increase is 5 to 20 ppm. This is a lot. It means that, in many free SO_2 titrations on red wines by the Ripper test, most of the result is attributable to phenolics, rather than to SO_2 at all.

I am also concerned that emphasis given to the Ripper test, which is basically inaccurate, does not give accurate figures when ascorbic or erythorbic acid is present. These two acids are used as antioxidants in many wines and the Ripper test will titrate them as if they are sulphur dioxide, thus giving an erroneous reading.

Lisa C. Van de Water
Director, The Wine Lab

Dear Lisa:

Thank you for the further illumination of the Ripper SO_2 test. The reader better understands why I described the Ripper test as the 'easiest', not the best and it is the cheapest given the questioner's 'limited budget'.

The vacuum aspiration method still only gets us half the way there for figuring how much SO_2 is available for microbial spoilage protection. Know how pH affects the equilibrium between SO_2, HSO_3 and SO_3—is the next step to understanding the whole picture.

Given the short-comings of the Ripper method have been explained, I will endeavor to explain the pH dependence in my next Q's & A's.

Bruce Rector

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MUST TO MARKET

By J. PATRICK DORÉ

This past August, I took a half/day off for fun and games. I had a pass to the Gourmet Food Show in San Francisco, CA, and it was, as I had anticipated it would be, very enjoyable.

I was particularly interested in the booths that featured wine related merchandising materials. One of the companies dealt with wicker picnic baskets, colorful tablecloths, napkins, beverage containers, and an entire arsenal of other goodies. The booth was beautifully done with flowers and other decoration, and it was a visual pleasure, to say the least.

The gentleman in the booth was very informative and gave me some pricing information which was not generally available to every person who dropped by. Our conversation centered around seasonal promotional pieces that dealt directly with white wines and blush pink wines. The prices were not cost-prohibitive in utilizing them for display purposes.

Please note that the following is **one** of many, many merchandising tools that can be used to promote product. I suggest it only as a point of reference to convey the general concept. You should be innovative and choose a merchandising tool that reflects the brand image you want to mirror to the trade.

When planning ahead for a spring or summer case-stacking promotion in 1984, purchase a single, complete picnic basket from this firm or any firm. Your cost for a single basket would be approximately $30.00 and much less for future quantity purchases.

If not already in stock, have the firm color code the table cloths and napkins, white and green checked for white wines, white and pink checked for blush wines. Take the picnic basket, and twenty cases of the wine to promote, to a photography studio to have a 8″ X 10″ color print made. Costs should run about $50.00 for the photographer and $2.00 for the prints.

Now if you have 25 distributors or brokers around the country, you will need at least 25 glossy color prints. Forward the prints along with a price sheet (f.o.b.'s) to your customers with a cover letter saying:

"Dear Jim, for the month of April we are running a special, promotional merchandising program for our blush (pink) wines (whatever style you call them). With every 20 case floor display, we will provide this handsome picnic basket (color photo enclosed) as a center-piece to encourage consumer take-away. These materials are in limited supply, so we need your requirements for the wine and merchandising pieces by such and such a date."

However, don't ever lose sight of the fact that you want **floor stackings** and not something that would equal a masterpiece on display at the De Young Museum. It must sell product!

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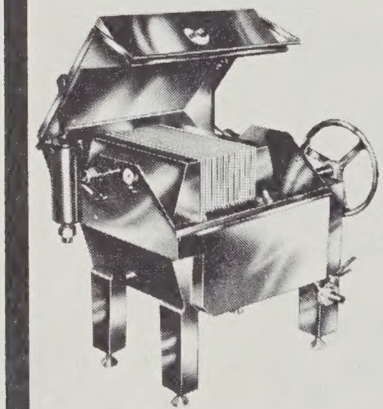

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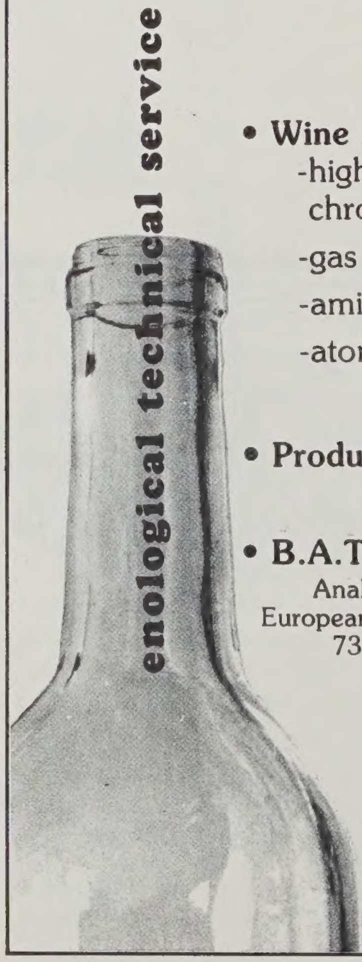

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Your investment thus far will be under $125.00, exclusive of postage, cost of labor, and stationery for the mailings. What you have communicated to your customer is:

a) We are professionals and have developed a merchandising program to help him and the retailer to promote the product.

b) We want a major effort behind the brand during a specific month.

c) We anticipate moving a lot of 20-case units.

d) Give us an order for wine and merchandising units.

e) Put him on the spot and make him commit.

When you quote f.o.b. for your product, you can build the cost of the display units into your case price, or if your margins are substantial enough you can cover the cost without adding to the case price. Remember, you are spreading the cost over 20 cases, hence the out-of-pocket is minimal. You are also selling against advance orders, so your risk is minimal.

Also at the Gourmet Food Show, I saw numerous wine-related items that were on display by the Napa Valley Wood Products Company. While most of what I saw were gift-related, several pieces were designed specifically as floor merchandisers. The prices of these pieces were within reason and with proper advanced planning, these floor merchandisers would be good tools to give your brand maximum exposure in the retail store.

Our good retailers are bombarded daily with post-offs, quantity discounts, etc., to the point where it becomes ho-hum. They welcome unique merchandising pieces and are motivated to buy product that is attractively displayed. Progressive retailers merchandise their stores by the seasons to capitalize on their customer's moods.

A word of caution. I'm not crazy about Christmas gift packs for wine. The big boys can do it better and can afford the dollar risk in the event the program bombs. The Holiday time of the year is far too competitive. Stay away from this big pond and look more to other months when the competitive activity is not so strong.

In summary, use your own imagination to find unusual, inexpensive merchandising pieces that will assure you of floor display activity. My own personal preference is investing in merchandising versus price discounting. Merchandising builds a good solid base for the long-term building of a brand franchise.

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Bottle Cleaner Offers Option to Water	January-February
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Cakebread Improves Vineyard With Drainage	March-April
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PROHIBITION

By Anne Murphy

Table wine is not an integral part of the American social fabric, and the United States has a long history of censuring alcoholic beverages with moral and social penalties. The fiftieth anniversary of the repeal of Prohibition reminds us of the legacy of our current irrational situation.

The foundation for a patchwork system of state legislation on alcohol was laid in 1890, with the Wilson Original Packages Act. This system was strengthened by further legislation in 1913 when the Kenyan Act made it a federal offense to ship alcohol into a state where that state's laws were being violated. Controls on alcoholic beverages were re-delegated to the states following Repeal on December 5, 1933, and the American wine industry remains confused and intimidated 50 years later.

We need a passport to sell wine from California to Nevada. It is just as difficult to sell wine in Pennsylvania as in Sri Lanka. Not only do we have to contend with different laws in each state, but many states have controls that are a hindrance to effective marketing and distribution of alcoholic beverages. There are states that prohibit advertising of wines and wine prices, but they allow advertising of drugs. Apparently those states consider wine worse than valium. Some states monopolize wine sales and allow no competitors.

In addition, wineries are hit with compliance nightmares in distribution, franchise security, price posting, bottle handling charges and even labeling restrictions. Such limiting con-

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trols exist only in the alcoholic beverage industry. This isn't reasonable regulation, but an uninspired means of beefing up a state's revenue.

Aside from being a nuisance to wineries, restrictive laws are a disservice to the consumer. To make them go out of their way to purchase wine implies that they are doing something wrong.

Controls in some states also affect the restaurant industry. States that do not allow wine served in restaurants limit the variety of restaurants available, and it becomes a nuisance to the consumer to always have to go to a private club to enjoy a meal accompanied by wine.

The wine industry is marketing wine as a beverage to accompany food, and even as a food in itself. They should also make every creative effort to convince lawmakers to change their state's prohibitionary laws, and to educate the consumer to the importance of being able to purchase wine as a food.

Such changes will not be a panacea, and new legislation will create new problems. But the wine industry is frustrated, and is ready to channel that frustration into productive activity. Responsible action can only improve the present market.

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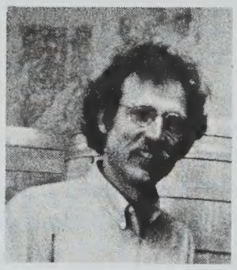

Q's & A's

Quality Approach

By BRUCE RECTOR
Consulting Enologist

Q. *What is the most gentle way to rack my wines? Shouldn't I use counter pressure with a gas rather than a pump?*

A: The amount of handling a wine can withstand varies greatly with its age. Young wines, particularly red wines, that still have CO_2 in them from fermentation actually benefit by a little rough handling. The CO_2 must be driven out of the wines so they can start their slow controlled oxidation that is ageing.

Also, the very low levels of H_2S that accompany even sound fermentations should be agitated and splashed out of the wine.

Gentleness is a rightful concern when the wine reaches its first birthday. The French say a barrel should never be filled or emptied in less than five minutes. This timing concern accounts for turbulence which enables oxygen to become incorporated in the wine. Indeed, the ocean would go stagnant from lack of oxygen if there weren't waves. So turbulence is of some importance.

A defective pump seal or suction hose with an air leak around a fitting is of major importance. When you are circulating your disinfecting solutions, with both ends (suction and exhaust) of the hoses in a tub, notice what is happening to the water.

Is it turning milky with miniscule bubbles? Then you have an air leak somewhere along the suction line or in the pump head, usually at the rear seal where the spinning shaft enters.

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It is absolutely imperative to quality that you find this leak and fix it before proceeding.

If the leak is not obvious, take the following steps: cap off the exhaust end of the hose or hook it to a closed valve, hook a water hose to the suction end of the hose with the appropriate reducers and adapters, turn on the water and see where the water starts to leak out.

It must be a 'static' set-up as above; if you turn on the pump, the leak will go away (don't be fooled into delight that something has actually fixed itself.) Where the water is leaking out somewhere on the suction side is where air is being sucked in when the pump is on. Replace the rotating seal, 'O' ring, tighten the fittings, etc. as needed.

When a wine is weary (premature ageing from high pH, oxidation, microbial spoilage, high storage temperatures), gentleness should be maximized by counter pressure or gravity racking. Counter pressure racking is possible when you pressurize a tank or container and provide a bottom-most exit for the wine.

There are barrel topping systems that are available using this principle which work nicely when moving small quantities. But harkening back to physics class will save us from embarassment and creating oak projectiles.

Oak barrels and the normal stainless steel tank cannot withstand enough pounds per square inch to lift the wine by counter pressure but a few feet. The rupture limit (don't quote me) for a barrel is 5-8 psi. This means the absolute (NOT SAFE) limit of lift is 10-16 feet. More importantly, the SAFE limit of lift is 5-8 feet. Meaning the barrel should only be pressurized with 2 1/2-4 psi, so there will be a margin of safety.

Stainless steel tanks even give less performance by only withstanding 1-2 psi without deforming. So counter pressure racking where you want to move relatively large volumes compared to topping can't practically offer more than gravity racking.

Gravity racking seems to only pan out if you are using forkliftable barrel pallets. Then you must have a smoothly operating forklift to change the altitude of full barrels without kicking up the lees.

If you plan on using wooden barrel racks, it always seems there is something in the way underneath that doesn't need racking.

The 'Quality Approach' would suggest that extreme gentleness should not be necessary by not letting the wine become weary in the first place. Implement these safeguards to quality:

1. Maintain pumps and hoses with particular attention to the suction side.

DO NOT ALLOW PREMATURE AGEING—

2. Control pH increases above 3.7: Harvest earlier, acidulate with tartaric acid and chill prior to fermentation, limit skin contact and maceration, prevent malolactic fermentation, and consider ion exchange.
3. Reduce oxidation—top up.
4. Prevent microbial spoilage, particularly surface (film) organisms that make oxidation products—TOP UP!
5. Eliminate high storage temperature; insulate tanks that are in the sun.

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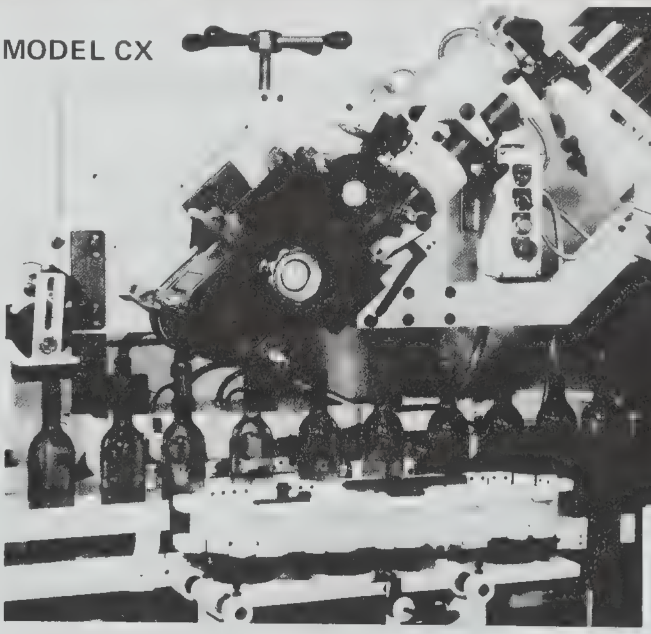

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BARRELS AND WINE

By DENIS KELLY

The 60 Gallon European oak barrel has become an important part of the palette of California winemakers in recent years. The winery's attitude towards small oak for the 'noble' varieties has become a major determinant of the style and market position of its wines.

Over the past few years, many of the smaller wineries are using oak with more restraint and less enthusiasm for the powerful and dramatic effects it can achieve. Small wineries, generally, are using less oak as an element in their wines.

On the other hand, some of the larger wineries are incorporating the flavors and complexities of the small European barrel into their once uniform 'California' style. Gallo is the the biggest, of course, with its large scale use of Yugoslavian and French puncheons and casks, and other large and middle size wineries have followed suit. Oak is in!

The subtleties and nuances it adds to table wine have become essential elements in almost any California red varietal, most full-bodied dry whites like Chardonnay and Sauvignon Blanc and quite a lot of generic and proprietary blends.

One medium-size winery that has performed this shift towards complexity with some success is Sebastiani Vineyards. Under the direction of Sam Sebastiani, the winery has moved towards more complexity in its premium varietals, largely by the use of small French oak cooperage and especially in its' Proprietor's Reserve series.

I talked with Bill Harper, winemaker at Sebastiani recently and asked him how small oak barrels fit into their new style.

Harper explained that the winery really began experimenting with small oak cooperage in 1979. They bought barrels from most major European coopers using all kinds of oak and levels of char. They ended up preferring Nevers oak barrels made by Seguin-Moreau, the Cognac cooper, with light char.

European oak is used for full-bodied dry whites: the three styles of Chardonnay Sebastiani currently produces and a new Sauvignon Blanc to be released spring, 1984. The winery continues to use air-dried American oak from Blue Grass Cooperage for its top reds: Cabernet, Zinfandel, Pinot Noir, and Barbera.

Small French oak barrels are the new seasoning in the Sebastiani stew (or should I now call it ragout) and they are using small cooperage to define the various new styles of dry, full-bodied whites. Chardonnay is the main wine here, of course, but the upcoming Sauvignon Blanc will, most probably, reflect a similar hierarchy of styles.

Sebastiani offers three different Chardonnays: August Sebastiani Country Chardonnay, inexpensive and sold in 750ml and 1.5L bottles; vintage dated Premium Chardonnay which sells in the mid price range for this variety; Proprietor's Reserve, Sebastiani's special selection and more expensive (although not in the upper reaches of the premium Chardonnay market).

Barrel treatment is a major determinant of style for these wines, and here we must realize that Sebastiani is relatively new to the small oak process. What they do not want to do, is commit the sin of the little winery with the brand new barrel—make it big and oak it up. At the same time, French oak is expensive and should be put to every possible good use.

So, Harper explains, "We use the new French barrels very carefully to get full value from the wood." Rather than leaching out flavors along with the rough tannins, by treating the barrel with soda ash and hot water as many wineries do, Harper simply rinses and soaks up the barrels with plain water and then puts a 'lesser' wine in.

He adds, "We're paying for the best oak we can find; why pour it down the drain?" So, when new barrels are tight, they're filled with a white blend or, more likely, wine destined to become Country Chardonnay. "The oak really punches in fast and in 2-3 weeks, this batch of Chardonnay is far too oaky. But then we blend it back into the bulk of the Country Chardonnay (at something like one part barrel aged wine to five parts non-oaked). This touch of oak gives the wine some complexity and some of the extra nuances of barrel ageing."

After one or two batches of Country Chardonnay (they sometimes stay in as long as a month or two), the barrel is filled with some of the winery's finest Chardonnay, Proprietor's Reserve. This wine, usually with more intense varietal character, more body and higher alcohol, ages in the relatively new barrel for 3-4 months and picks up definite oak flavors.

This becomes a part of the Proprietor's Reserve style and the wine is blended into the final assemblage to provide a significant element of oak. Varietal fruit with a recognizable undertone of oak is what Sebastiani is looking for in its Proprietor's Reserve Chardonnay.

One or two more lots of Proprietor's Reserve will move through the barrel in 3-4 or 4-5 month periods, depending on the barrel and the wine. (Harper was firm in stressing that no decisions about barrel ageing were made in the abstract. Each barrel of wine is tasted separately and evaluated by itself.)

After about two years of use, the oak flavors and aromas have been 'tamed' and the barrels are filled with the winery's 'regular' Chardonnay, vintage dated Premium Chardonnay. The oak flavors will be lighter than in the Reserve wines with less alcohol, extract and body.

Harper emphasized that they were still experimenting with small oak. "The program really didn't get going until 1979. We have a long way to go in fully understanding the role of small European oak, but we feel that the influence of the barrel is certainly a part of the new Sebastiani style."

Questions
and
Opinions
Wanted

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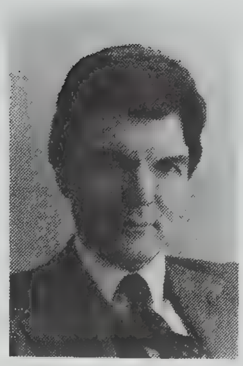

THE WINE LAWYER

By R. CORBIN HOUCHINS

DISTRIBUTION

Part II

Territories

In the previous issue, we began looking at legal considerations which affect competition for margins between wineries and wholesalers and focused first on protection of sales territories.

In this issue, we will continue examination of the "rule of reason," which governs antitrust analysis in states which do not have mandatory exclusive sales territories.

Issue of Exclusivity

Why does protection of sales territories raise anti-trust questions?

In its classic form, territorial protection is a contractual obligation running between a supplier and his customer under which the supplier agrees that he will not sell "x" to anyone other than that customer within a certain geographic area. The purpose is, of course, to restrain potential competitors of the customer from competing with him in the sale of "x," and such agreements typically have that effect.

To protect one market, it is not logically necessary to restrain the protected customer from selling outside his protected territory. Practically speaking, however, the supplier needs the ability to accord the same treatment to customers in other markets, so a second restraint is ordinarily imposed, prohibiting the customer from selling "x" elsewhere.

With those two restraints, the parties have achieved a resolution of competing interests which would constitute a federal felony if done by two wineries or two distributors: they have divided markets geographically and eliminated competition in the sale of "x" between the customer in area A and his counterpart in area B. The arrangement is saved from illegality only if the restraints are both vertical and "reasonable" as that term is defined by the courts.

Effects of Territorial Protection

Reasonableness is determined less by immediate monetary impact on the contracting individuals than by effects on the marketplace.

The primary effect of territorial protection is to enable the customer to maintain higher margins, which create the potential for greater expenditure of time and money by the customer on the marketing of "x".

The winery's goal is realization of that potential. Among its' means are the terms of the distribution contract, including very prominently the definition of "x" and the duration of the agreement.

Secondary results of comfortable margins include making it easier for the products of a competing winery to enter the market and allocation of profits derived from "x" to the

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marketing of "y" or to some other purpose – which may or may not be related to your interests.

It is those results that raise the image of brands held hostage by exclusive wholesalers, but properly drawn distribution agreements can minimize whatever tendency in that direction your customer's bargaining power may create.

Balance of Power

Although one should never overlook bargaining advantages that can be gained from knowledge of the marketplace, forethought, realistic assessments of alternatives, applied psychology and suasive skills, the balance of market power remains the most influential factor in negotiating with a wholesaler.

It isn't possible to tackle the subject of negotiating distribution agreements in this space. Let's assume for the sake of discussion, that you are obliged to grant an exclusive territory in order to induce a distributor to do a job for you.

Given the balance of bargaining power, you will make the best deal you can in the length of term of the contract, the sales quotas and other features of the marketing program, the list of specific tasks the distributor is to perform and the grounds for termination. Now comes the territorial exclusivity clause.

Granting Exclusivity

First, a couple of practical points, and then a philosophical question:

When it comes to the territorial description itself, describe accurately and use borders that can be easily located. I can't begin to count the number of territorial descriptions I have seen, that no one can locate on a map.

Another key issue in granting protected territories is the product description. Obviously, the narrower it is, the more flexibility you have. Again, I see numerous examples of agreements which are unclear on whether a specific product or an entire line is involved and on what rights, if any, the wholesaler has in new products that are released after the agreement is signed.

There is no logical necessity, that every item in your product line be assigned in the same agreement, for the same period of time or with the same rights of exclusivity.

The basic objective is to give the wholesaler a reasonable incentive to handle those items which your marketing plan calls for selling in his market in the next year or so. Further brand commitments may be appropriate or not, depending on the circumstances.

Who Cares About Validity?

Obviously, there are many more wrinkles to the practical bargaining side of exclusive territories, but we should get back to the subject of legal reasonableness.

Let's resume by asking a basic question: Does it really matter? If you can't get distribution without granting an exclusive territory, should you care about its' legal validity?

Absent horizontal collusion, there need be no concern about criminal liability. Law enforcement types are not going to prosecute anyone over a rule of reason issue.

Third parties are not a likely source of trouble. Theoretically, a consumer or group of consumers might have an interest in proving the illegality of an exclusive territory, in order to lower the shelf prices of your wine through more open competition for the business of the high-volume accounts, or even to recover damages based on higher prices paid.

A retailer who because of a strike, a price differential, an opportunity to use central warehousing or some other reason wants a choice of sources for a hot item could conceivably have sufficient motivation.

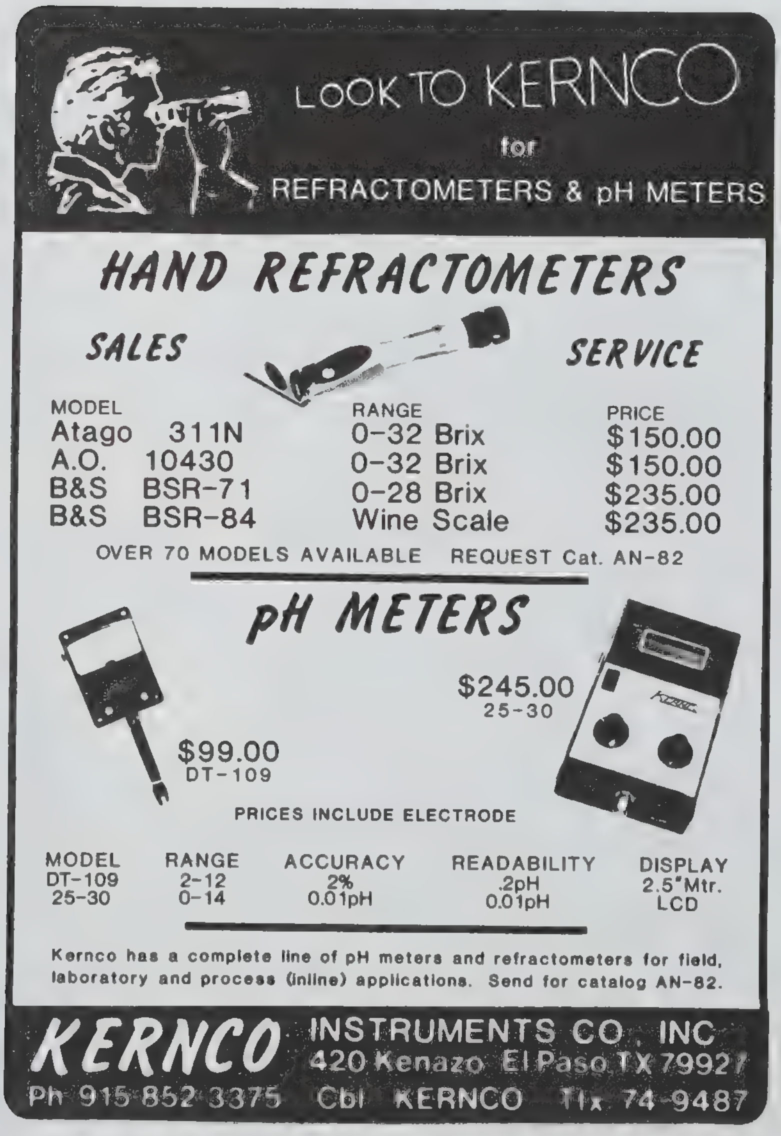
We do not typically see suits by consumers or retailers because the potential rewards seldom justify the expense or the disruption of business relationships. Current tendency of courts to approve non-price vertical restraints is an additional deterrent.

Practically, the legal validity of the territory is most likely to matter to you if (a) one distributor wants you to stop another distributor's incursions in his market, (b) product from unauthorized sources – possibly out-of-date or distressed – is finding its way into the trade or (c) you terminate a distribution agreement for some reason unrelated to territorial issues and the former distributor sues on the theory that the termination was in aid of unreasonable territorial restraints (plus other nefarious schemes). Unfortunately, the legal validity of the territory generally gets looked at only after the problem has boiled over.

Since reasonableness as a legal concept does have practical consequences, in the next issue of PRACTICAL WINERY, we will examine more closely how it is determined.

◆

R. Corbin Houchins is a partner in the national liquor law firm, Duryea & Houchins. His column is not intended as legal advice, nor does it necessarily represent the views of regulatory agencies on the matters discussed. Readers who would like to submit specific questions for discussion in future columns are invited to send them to Houchins in care of PRACTICAL WINERY.



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What is IN a Wine?

By Dr. Richard G. Peterson, Winemaster
The Monterey Vineyard
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Flash: Ingredient labeling of table wines is now being reconsidered by the Bureau of Alcohol, etc. in the Department of Treasury. They could require wineries to print "ingredients" contained in each wine on the bottle labels as early as 1984. The wine industry is incensed, and intends to fight the proposal at every step. Why?

Why do you suppose wine people oppose so strenuously any use of the word "ingredients" in wines? Never mind that the industry feels the proposal to list so-called ingredients on wine labels originated from modern-day prohibitionists who are hiding behind a guise: appearing to be consumer advocates interested in the public health.

Never mind that! Doesn't the consumer who wants to know deserve a straight answer? Isn't it a consumer's right to know what he's asked to buy and consume?

The winemaker's answer to these two questions is unequivocally, "YES! Just tell me how to explain what's in a wine in a few words, and without being misleading."

I will try to explain, but it won't be done in few words. Sorry, but the subject of ingredients is not as simple in wine as it is in other foods. Take mayonnaise, or catsup, ice cream, breakfast cereal, or any other fabricated food; these are made by mixing ingredients together which then (under their specific conditions of cooking or other processing) remain in **and become the final product**. They truly are ingredients because they are added to the mixture and they remain in the final product.

With wine, this isn't often so. Other than grapes, practically all of the materials used in wine processing to improve the product DO NOT REMAIN in the wine they were added to! To list these as "ingredients", would tell consumers that the material IS IN the wine—and this would not tell the truth.

SOME EXAMPLES

We add pure yeast to fresh, crushed grapes in making wine. Wine is made when yeast naturally ferments the juice of grapes; we then filter off any sediment that forms (small pieces of stem, skin, or other grape solids, along with the yeast), age the wine, then bottle it.

No yeast remains in the final wine—yet yeast was certainly added, and it was in intimate contact with the liquid during fermentation. Is the yeast an "ingredient"? Wouldn't you think yeast was still present in the bottle of wine if yeast was shown on the label as an "ingredient"?

Small amounts of egg white or gelatin are often added to young red wines to remove excess tannin because the natural tannin of new red wine tastes very astringent, even bitter when present in excessive amounts. Egg white combines naturally with excess wine tannin to form a curd which settles to the bottom of the tank and is removed from wine by filtration.

Aunt Thelma uses egg white to clarify her fabulous consomme in the same way. Only minute traces, *if any*, of the egg white or gelatin added to red wine remains at all—are these ingredients?

We don't add sugar to wine in California, but it is legal to do so in other states and in all European countries. Suppose a New York winery adds sugar to one of their fermentations. After the fermentation is dry, there will be *no trace of sugar remaining in the wine*. (During fermentation, all added sugar was transformed into alcohol and carbon dioxide.)

If the producer states 'sugar' on the label, the consumer reading it will believe that the wine contains sugar (the label says so); yet it does not contain sugar! The label has lied to the consumer.

California wines are often deliberately stopped in fermentation before all the natural grape sugar is used up. This might yield a wine with residual sweetness of, let's say, 2% sugar

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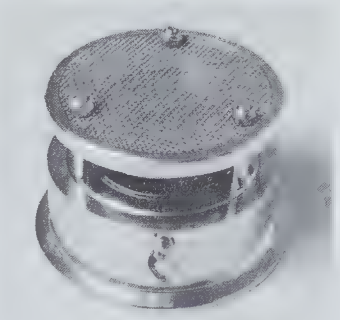

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content. The winery would not list sugar as an ingredient *because NO sugar was ever added*—yet the consumer would be ingesting a product containing 2% sugar and, again, the "ingredient label" would mislead him (this time by NOT stating the sugar content)!

Confusing, you say? Suppose we produce three wines with the following materials:

—Wine A: Chardonnay grapes, with nothing else added at all.

—Wine B: Chardonnay grapes, grape stems, yeast, sulfur dioxide, tartaric acid, malic acid, gelatin, egg white, oak chips, cork bits, sugar.

—Wine C: Chardonnay grape juice concentrate, water, yeast, brandy.

Question: Wines A, B, and C contain different chemical constituents, right?

NOPE!

Question: Wines A, B, and C could be differentiated from each other by lab analysis, right?

NOPE!

Question: Are you kidding?

NOPE!

Wine A was made in the same way wines have been made for millenia—crush grapes, step back and let'em spoil, then strain it and bottle it. The juice will naturally turn to wine because of wild yeast which *is always on the skins of fresh grapes*.

You can improve the fermentation and make cleaner wine if you add a pure, cultured wine yeast instead of allowing (wild) yeast that occurs naturally on grapes to do it.

In either case, yeast that turns your grape juice into wine won't remain in the wine—it settles out and gets removed (by decanting or filtration) prior to bottling.

Wine A would not list "yeast" as an ingredient *because none was added*; yet yeast contact with the wine during fermentation was just as intimate as if yeast had been added.

You can add grape stems to a fermentation if you like the flavor they impart, but again, if you do, they won't remain in the wine. They'll settle out and be removed long before the wine is bottled. Stems are present in most fermentations, but to varying degrees, because some wineries have more efficient and newer crusher-stemmers than others.

You can add a small amount of sulfur dioxide (SO_2) to the fermentation if you want a cleaner, better tasting, and better ageing wine. But don't add more than a hint, perhaps 50-75 ppm, or the wine might taste worse, not better.

Whether you add SO_2 or not, yeast will manufacture small amounts of SO_2 on its own during fermentation—it's a natural constituent of all new wine whether you choose to add it as an ingredient or not.

The winery which doesn't add any at all would not show it as an ingredient. But his wine will always contain some amount! Isn't that misleading, and unfair to the wine that is actually a superior product because the producer added SO_2 in processing?

THIS JUST DRAGS ON AND ON—

You may choose to age your wine in barrels to improve the flavor. Some wineries (but not **Monterey Vineyard**) just pour in some oak chips to soak awhile, quickly giving the wine a little oak aged character.

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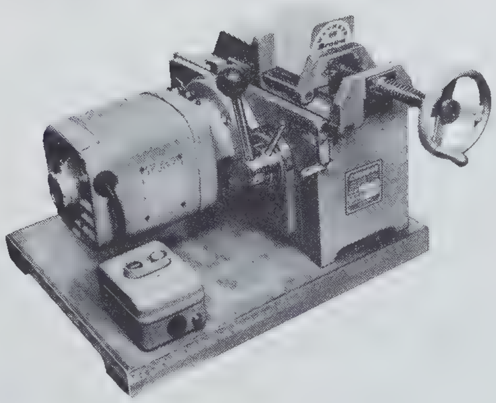

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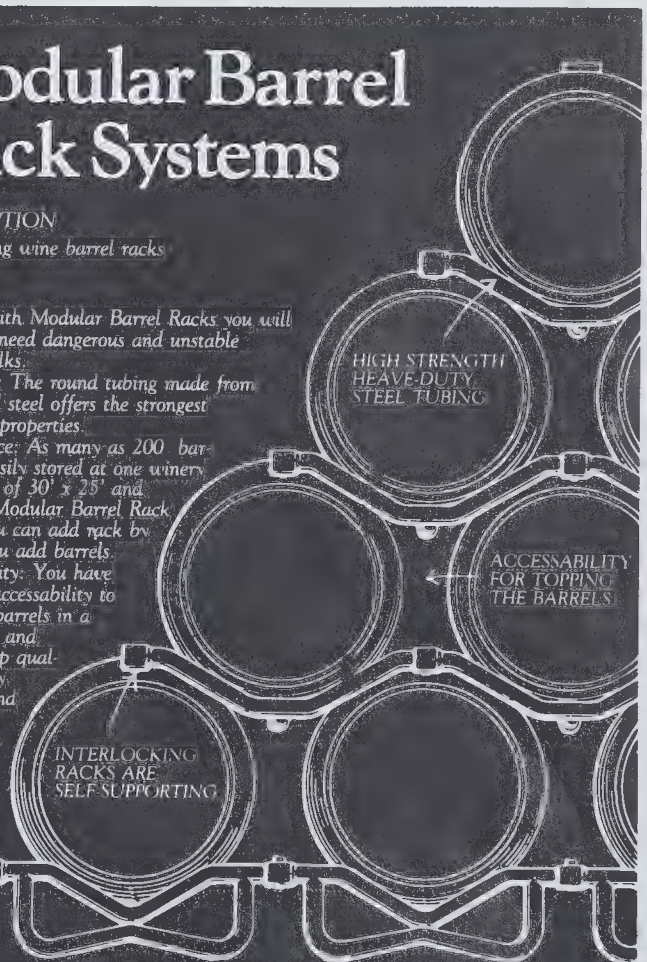
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slowly appears in a bottled wine after several years storage where the wine is in contact with the cork in the bottle mouth.

We don't do this at **Monterey Vineyard** either, but it's a perfectly valid practice for some wines in some wineries, and our not doing it doesn't mean that we're critical of those who do. It's just a matter of style. In either case, no oak or cork bits remain in the wine at the time of bottling. Should they list oak chips or cork bits on their labels as ingredients? Why would that interest any consumer regarding health?

Natural organic acids in grapes, and wine, are primarily two: tartaric and malic. Malic is the primary natural acid in apples, pears, quince, and other fruits, but tartaric is far more rare and occurs in quantity only in grapes and precious few other plants.

Some lots of grapes are naturally high in tartaric acid, some (often picked from the same vineyard) are naturally lower. Unfortunately, this usually cannot be predicted ahead of time.

If your grapes are low, you can choose to make cleaner, better tasting wine by adding a little more tartaric (0.1 or 0.2%, usually) to the fermentation. Sometimes, you can blend a 'low acid' wine with a 'high acid' wine (and avoid adding acid directly) if you're lucky enough to have both wine types in the same year.

But, even if you add tartaric acid, the acid you use *always comes from other grapes*: synthetic (chemical) tartaric acid DOESN'T EXIST in commerce. The world supply is extracted directly from high acid lots of grapes by certain wineries to sell to those others whose wines need it.

The final tartaric acid that ends up in wine is natural grape acidity whether you've added any to your fermentation or not. It's always natural. Winemakers fear that the statement 'Tartaric Acid added' would mislead some consumers into believing that chemicals were added—which they weren't.

Same story is more-or-less true for malic acid, although certain natural bacteria may change (during wine ageing) all the wine's malic into another acid, lactic, during 'malolactic fermentation'. If this happens, your wine WON'T contain any malic acid—*whether you've added any or not*. If no 'malolactic fermentation' happens in a given lot of wine, then that lot WILL contain malic acid *whether you've added any or not*!

Ingredient labeling in these cases would force wineries to print alternate sets of labels—one saying "Tartaric Acid added", another saying "Malic Acid added", another saying "Tartaric and Malic Acids added", and yet another for the situation in which neither was added.

Multiply this times the sugar, yeast, SO_2, etc., etc. variabilities described above and you have a nightmare in the labeling department. For what?

It tells the consumer nothing that is meaningful! This is the essence of the industry's argument that precise ingredient labeling is unworkable in practice. **All lots of a given wine may not be produced in precisely the same way.**

Deficiencies of natural acid might be made up by additions to one lot, but not to another (otherwise identical) lot of the same wine. The addition doesn't make one lot perceptibly different from the other—yet the listing of "different ingredients" would certainly cause the consumer to believe the lots were different!

Mercifully, the Bureau of Alcohol, BATF, realizes this and has proposed to allow wineries to answer ingredient inquiries from consumers by mail instead of listing them on every label.

But every winery I know already does this; if you wonder what's in one of our wines, just write and ask. We'll tell you promptly, and precisely. We always have.

It is entirely possible that wines A, B, C, with the ingredients listed above, might end up with identical tastes and analyses— for practical purposes, they are identical to each other! Yet, the differing list of ingredients on each wine would make anyone think they are vastly different wines. This is a winery's primary problem with "ingredient labeling" as it is being re-proposed.

We think it's a good principle, and we certainly desire to let any consumer know, who wants to know, how his wine was made.

Reprinted from Winemaker Notes from The Monterey Vineyard, Summer, 1983.

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PINOT NOIR

By Barbara Lang
Inglenook Vineyard's Estate Cook

When selecting foods to go with a wine, people often refer to food and wine charts, or use traditional combinations from a country that produces the same varietal. Both ways are helpful, however, the major drawback to these suggested matches is that you can't make blanket statements listing foods that have an 'across the board' affinity with a certain varietal.

California Pinot Noir is a wine made in several styles and since it is not similar to French Burgundies, choosing a Burgundian dish may or may not fit the bill as easily as one might assume.

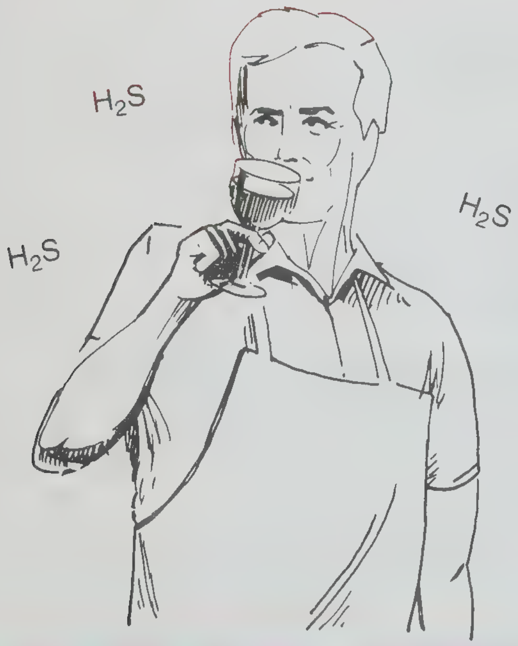
When choosing food for Pinot Noir (or any wine, for that matter) you should consider the varietal characteristics indigenous to that wine and also the style and age of the wine.

Varietal characteristics in a wine often assist a cook in deciding what seasonings to use, and it is common to repeat a flavor found in a wine with the actual food. Obviously, this refers to edible flavor associations and not associations like 'an old cigar box'.

For example, since the flavor of cherries is often associated with Pinot Noir, successful combinations have been partially attributed to sauces using cherries as a main ingredient. Cherries pick up and enhance the fruit in the wine while their acidity is balanced by a fuller Pinot Noir's body. (Be aware that fresh cherries are more acidic than canned.)

Repeating a flavor makes a complementary match enhancing both the food and the wine. Other flavor associations for Pinot Noir are honeysuckle, wild violets, strawberries, mushrooms, peppermint, cassis, prunes, and pomegranates. Obviously, a cook can have a heyday when experimenting with seasonings and Pinot Noir.

The style of a wine will lead you towards the style of food needed. A Pinot Noir can be fruity, light-bodied, low in alcohol (under 13.5%) and tannin, and will require food that is similarly light in texture and delicate in flavor.



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Roast chicken and other less gamey fowl have a low amount of fat, so they require wines with minimal tannin and low alcohol, such as a lighter style Pinot Noir. Since these birds are delicate in flavor, they can carry other flavors introduced through an oil-based marinade, stuffing or a light sauce. (Wine-based marinades often make a dish too acidic, and this can make a fruitier Pinot Noir taste harsh and flat.)

Small birds, like Rock Cornish Game Hens stuffed with wild or domestic mushrooms, bring out the more 'earthy' qualities found in a Pinot Noir. Coq au Vin, a Burgundian dish, goes quite well with a light style Pinot Noir, particularly if the dish is liberally enriched with onions and mushrooms.

Using the same wine in cooking strengthens the affinity between food and wine. Onions, with their inherent sweetness, bring out the sweetness of a Pinot Noir and are a wonderful complement to the wine. Similar vegetables in the onion family would probably do just as well, as long as their initial pungency is replaced, through lengthy cooking, by their natural sweetness.

Some people enjoy salmon with lighter Pinot Noirs. Salmon is high enough in fat to stand up to a light red, particularly when its flavor is enhanced by poaching in Pinot Noir, or when grilled.

Fuller Pinot Noirs are often higher in alcohol and tannin, and can carry more acidic, fatty foods. Duck with a fruit-based sauce is a popular dish with this style Pinot Noir, because the meat has the richness and fat necessary to match the Pinot Noir's body. The higher alcohol in the wine enables it to carry the high fat content in the duck. The sauce's fruit has the acid to cut the duck's richness but also has the fruit to enhance and highlight the fruit flavors in the Pinot Noir.

The most elegant, fat Pinot Noirs are beautifully coupled with a simple Filet of Beef. The similar soft, but meaty, textures in the food and wine fatten one another's flavor, and sweetness in the wine can make the beef taste juicier and more flavorful. To many people, few California Pinot Noirs have the complexity or body to fare as well with this dish as a French Burgundy. Trial and error with your own palate is the best way to find out if you agree or disagree with this opinion.

Cheeses and heavier Pinot Noirs can also be very good. Semi-soft, mildy-flavored cheeses, like a young Taleggio or Port Salut do well because of their moderate amount of butterfat and delicate flavors. Usually, the fuller the wine, the more butterfat a cheese can have.

The assumption that cheese and wine are natural partners is not true. Pungent cheeses often overwhelm the subtler flavors in a wine, and cheeses too high in butterfat can make the wine taste too acidic. A selection of different semi-soft and soft-ripening cheeses during a cheese course could prove most interesting and enjoyable with the last drop of a Pinot Noir at the end of a meal.

A reliable rule of thumb is to serve the most simply prepared food with more elegant, aged Pinot Noirs. Use the best quality food available. However, allow the simple, pure flavors of the food to come through; don't camouflage the natural flavors with complex sauces or elaborate stuffings.

The more refined and complex a wine, the more it will show flaws or disharmony in food. One's focus is taken away from the wine—a shameful thing to occur when a well-matured Pinot Noir is being poured.

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IN THE CELLAR

By Rod Smith

Photo courtesy Christian Brothers Wine Museum

Certainly we have all seen serious *connoisseurs holding champagne flutes to their ears. What does it mean?*

They are listening to the bubbles, which tell the experienced listener a great deal about the quality of a sparkling wine, and how it was made. It is said that if you hold a flute of top-drawer champagne to your ear, you can hear Euripides composing the *Bacchae*. (Some hear only the ocean, or a Spring breeze in the firs, or the soft tread of a hired killer creeping up behind them.)

Try it yourself. Start at the bottom, with one of those pseudo-champagnes that make people wish they were dead the next day. Notice the rude, fat bubbles that wobble to the surface and slop into the kind of foam used to quench electrical fires.

The ill-formed beads evoke the image of a scuba diver trapped down in the rocks and exhausting the last breath fighting off eels, which is how you'll feel if you drink very much of the stuff.

The astute listener will know from the sound those bubbles make, curiously reminiscent of stale cocoa krispies, that this bulk-processed beverage was made over a ten-day period in huge, pressurized vats and has nothing to do with actual champagne.

Pop a slightly better one, made by the *transfer process.* This wine took slightly longer to make—up to several months. It was even partially fermented in large bottle-like containers before being dumped into the vat for adjustment and bottling. These bubbles are slightly more polite, but they still hit the ear like Pacific surf, making far too much noise to be credible—clearly, somewhat short of civilized bubbles.

Next, audition an inexpensive but honest *methode champenoise* sparkler from Spain or California, made from decent grapes and second-fermented in the very bottle from which you pour. From vineyard to labeling, this wine was made just like a Special Club candidate, though still lacking the premium grapes, maturity and attention to minor details that make something like Paul Bara Brut so much better (and, but of course, so much more expensive).

This one sounds much better, *n'est-ce pas*? We've now crossed the line between carbonation and *effervescence*: the soul of a single bottle, the product of slow, natural fermentation in that particular vessel from *liquer de tirage* through final wiring. These smaller beads may come in gusts, and sound something like a rabid bat in its last throes under dry wisps in the hayloft; it will tingle, rather than rage, in the mouth.

Now, step to a house *brut* from Champagne itself. It sounds arid and crisp, like a laser cutting a butterfly wing. Such delicacy reflects the wine's several years of rest *en tirage* following secondary fermentation. During that time, the gaseous element became so wholly integrated with the liquid that it emerges somewhat shyly in tiny, gracefully ascending beads.

Tête de Cuvée Champagnes express a similar sound, with degrees of refinement beyond the perception of most mortal eardrums. The effervescence of such wines offers a sound very much like the one electronics engineers call Big Space—the ghostly whisper of microwave signals from the Milky Way.

Of course, if you hold the glass to your ear too long, you'll miss the point entirely.

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PINOT NOIR

A California winemaker was recently told by visiting French winemakers that Californians were wrong to concentrate their efforts on Chardonnays. "They should be making Pinot Noirs, instead," they said.

A French importer recently refused to discuss California Pinot Noir as anything even closely related to French Burgundies. "California Pinot Noirs are ghosts," he sniffed.

Well, are they ghosts—or are they goblins? American winemakers have been confounded by the fragile Burgundian grape and experiment with every classic method to approximate the French ancestor.

There are widely divergent opinions on everything from climate to clones, from fermentation temperatures to cap management. Is soil the major factor, or is it acidity?

Viticulture and vinification techniques have improved tremendously in the last five years. There is an impassioned effort among American winemakers to make the finest Pinot Noirs they can. Recent vintages promise success. But, unlike the French, their fortunes are not yet assured.

Pinot Noir punched down by Bill Frick.

ACACIA

PW: Describe your style:

Larry Brooks: Our production methodology defines our style. We lean toward a Burgundian style. We use hot fermentation and a minimum of racking. The taste of new oak is a key factor—oak in balance with other flavor components. We have used 50% new oak and 50% one-year-old oak on every vintage except our first, in '79, which had all new oak.

Wines are released with one year of bottle age and are balanced, ready to drink upon release, and show well for several years. We produce five vineyard designation labels. It is a Burgundian tradition to keep the vineyards separate by bottlings, and the wines are all different from each other, making the whole winemaking process more interesting.

PW: Describe the vineyards:

LB: The five vineyards we purchase grapes from are all in the Carneros region, a very cold region I. Carneros has a maritime climate with mild winters. During the growing season, we have foggy, cloudy mornings which burn off by 10-11 AM. Moderate temperatures are cooled down by afternoon winds almost every day.

We purchase all of the Pinot Noir grown in the flat, five acre Iund Vineyard, planted in 1971-72 with budwood from Martini's vineyard. Yield is 2-2½ tons/acre from the virused vines which were originally cane-pruned, but have been converted to cordon.

Iund fruit has the largest berry and toughest skins which produce the most tannin of all the vineyards. Fruit has a distinct black pepper and spicey character. One of the last vineyards to ripen; if you pick too late, the fruit can be too peppery. Harvest numbers are flexible and can be affected by the climate in the individual growing season, but to achieve the proper tannin level, Iund should be picked under 22.5° Brix.

We purchase 20 tons from the Lee Vineyard, planted in 1967. The cordon-pruned flat vineyard of clay soil produces three tons/acre, the highest yield of the five we buy from. The fruit is lighter in color and has an intense cherry flavor that develops slowly in the barrel and bottle.

Separating whole clusters from gondola for addition to Acacia fermenter.

Lee is hard to pick; it stays underripe a long time and then ripens very quickly. The window for optimum picking is very narrow as Pinot Noir deteriorates very fast once it ripens. Color is pH dependent and we don't want to pick Lee above 3.2. We began purchasing 20 tons/year from the Madonna Vineyard in 1980. Planted on a western slope, the vines are extremely virused, vertical cordon with modified head pruning. They are basket pruned to two canes (30-40 buds/vine) and yield two tons/acre or less. (The other four vineyards average 50 buds/plant.)

Madonna grapes can jump in pH quickly (one/tenth per day). We watch the fruit daily at/or near 3.1 to determine when to pick. If we pick too early, we will get green, grassy flavors. The fruit is very dark, has very full flavor, and is very mouth-filling. It is very intense, aromatic, almost French Roast coffee-like flavors which complement the traditional roasted barrel flavor.

St. Clair Vineyard, with 10 acres, is planted with virused budwood from the Martini vineyard, and is usually the first to be picked. On a southern exposure, the cane-pruned vines yield 2-3 tons/acre (3 tons/acre in '81 and '82 due to heavy winter rains.) These grapes are traditionally low in pH, and we wait until 3.2 is reached in order to sustain the yeast and malolactic fermentation.

St. Clair's very small berrys have extremely black color. The fruit is almost tropical, very lush and full. The vineyard produces excess sulphite which we correct for by adding diamonium phosphate after analysis for ammonia content of the must to 125-200 ppm.

We purchase 20 tons from Winery Lake Vineyard which was planted about 1963. The cane pruned vines on a northern slope yield 2-3 tons/acre. Grapes are very thin skinned, so delicate they could be crushed easily in the gondolas. (We ask them to only put 5 tons of fruit in a 7-ton gondola.) Winery Lake fruit is one of the lightest in color, but has very complex, almost sweet (actually dry) flavors. It is not as tannic as some, but very Burgundian.

PW: When are the grapes picked?

LB: Grapes are usually picked in mid-September. We have picked as early as August 27, 1981 and as late as September 27. Madonna, St. Clair, and Winery Lake come in about the same time followed by Iund and Lee, about ten days later.

PW: How is the wine made?

LB: Recently we have been adding 50 ppm SO_2 at crush which would be 20-30 ppm total when entering the barrel. We used to add 70 ppm at crush. In '83, we tried no SO_2 on real good fruit and added 30 ppm after malolactic had completed, depending on the wine. Good Pinot Noir with low pH (average at bottling, 3.45), good phenolics and tannins does not need a lot of SO_2. 1982 St. Clair was picked at 3.15 and bottled at 3.27 with 0.07 TA.

Generally, fruit is about 1.0 TA at picking, if it arrives below 0.9, we will add tartaric to adjust to 1.0. Our five ton fermenters are usually filled halfway with crushed and destemmed fruit and then about 7% whole fruit is dumped in and mixed by filling the balance of the tank. We have experimented with additions between 5-10% whole fruit for the desired flavor effect.

The first evening the fermenter is full, 1½-2 lbs of yeast is added to the top of the tank. When the cap first splits, and there are signs of foam, the first pump-over with a high pressure pump for 30-40 seconds is followed by punch-down to make sure the entire cap is broken up. The cycle is repeated four times a day.

Fermentation is allowed to reach 85-90°F in order to optimize flavor and deep color extraction. If temperature of the juice gets above 95°F and the cap above 100°F, we use cooling jackets to bring the juice back to 85-90°F.

On average, we press off skins after six days when the wine is about 0° Brix. We stop punching down 18 hours ahead of pressing to optimize the free run yield. We use a bladder press at very low pressures, giving light pressing to yield very little clouding and very little bitterness. We run five cycles under 1½-2 atmospheres and the final cycle as high as three atmospheres.

Wine is settled in tanks 2-4 days, racked, settled seven more days, and racked to barrels. Barrels are topped every 7-10 days and racked in the Spring after malolactic (which occurs without inoculation of commercial bacteria) has finished. The wine is fined and returned to barrels to complete the goal of 10-11 months barrel contact. Bottling follows in August.

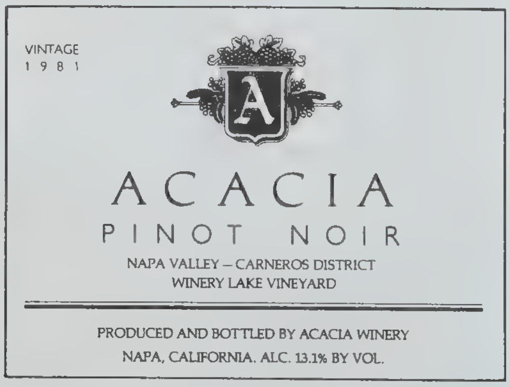
We buy barrels from one cooper in France, Francois Freres, who has visited our winery and tasted wines with us and knows what we are looking for in wood to complement our wines. He uses woods from the Center of France: Allier, Troncais, Nevers and Vosges and gives a medium or heavy char. We prefer a variety of chars.

We inspect every barrel for char level and spread out equally charred barrels throughout the winery on different vineyards, as well as the different oaks.

We give the wines thorough fining trials. We try the following agents separately and in combination: egg-whites, gelatin, casein, and bentonite. If there is a clear preference, then we do an expanded trial with the particular agent. If not, we may use two egg-whites/barrel.

To achieve greater clarity or flavor modification 1/8 lb of gelatin would be chased by 1 lb of bentonite/1,000 Gallons. Some wines have responded to 1 lb/1,000 Gallons of casein.

Larry Brooks



VINTAGE
1981

ACACIA
PINOT NOIR
NAPA VALLEY – CARNEROS DISTRICT
WINERY LAKE VINEYARD

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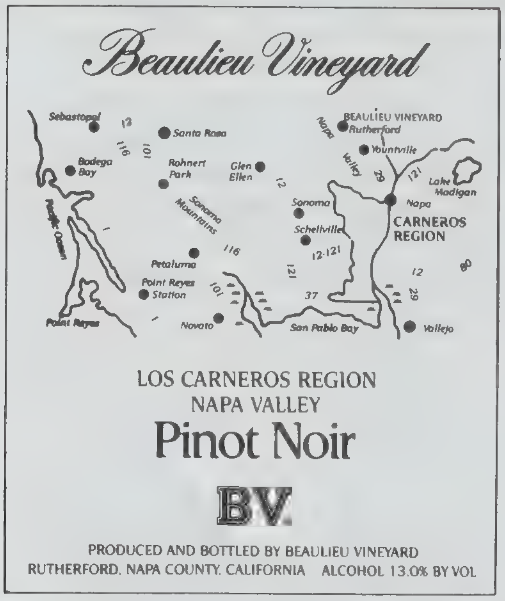
NAPA, CALIFORNIA. ALC. 13.1% BY VOL.

To illustrate the difference in vineyard grapes, notice the fining agents used on 1982 wines: one took casein, one took bentonite, one took bentonite and gelatin, and two required egg-whites.

Acid adjustment trials are also done and occassionally 0.05-0.07 tartaric acid is added. Fining agents are settled during cold stabilization at 35 °F for 12-14 days which can help modify the pH.

In case of insufficient clarity or stability a polish pad filtration would be done a day ahead of bottling. In '80 only one vineyard lot required filtration, in '81 none. Total SO_2 at bottling will be between 30-50 ppm, depending on pH.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101
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116
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37
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Beaulieu Vineyard

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BV
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RUTHERFORD, NAPA COUNTY, CALIFORNIA ALCOHOL 13.0% BY VOL

Diana Burnett

BEAULIEU

PW: Describe your style:

Diana Burnett: Our goal is to release Pinot Noir that is rich, smooth, balanced and ready to enjoy upon purchase. However, it should gain in complexity and age well for many years depending on the particular vintage.

We currently bottle three different styles. Beaumont Pinot Noir is 100%, made primarily from grapes in the Carneros region with the balance from the Napa Valley floor. Beau Velour is a blended wine with 12-20% Petite Sirah. The third wine, Carneros Pinot Noir is 100% from the Carneros region and displays the more minty character of that appellation.

Beau Velour is not aged in small barrels, but the other two spend about one year in American oak. We add no stems back and ferment to dryness before draining and pressing.

PW: Describe the vineyards:

DB: Beaulieu Vineyard #5, located very near San Francisco Bay, is essentially dry farmed and the 150 acres was planted in 1962 with non-heat treated vines. Two other vineyards in the same area make up another 250 acres and have heat treated vines with drip irrigation. All three vineyards are cane pruned, hand harvested, and yield 1½-2 tons/acre.

PW: When are the grapes picked?

DB: We begin obtaining berry samples in early August (about 600 berries/block). Samples are monitored for sugar, acid, and pH. Each block is sampled weekly until optimum maturity is reached.

Ideally, we want the grapes to be 23° Brix, 0.9-1.0 TA and about 3.1 pH. However, purpose of sampling all three components of the fruit is to determine a picking time close to ideal sugar level, but before acid begins to drop and pH rises. Too many Pinot Noirs have high pH and low acid as a result of winemakers waiting for higher sugar fruit.

PW: How is the wine made?

DB: Upon crushing, 50-70 ppm SO_2 is added to inhibit wild yeast fermentation, but not to interfere with malolactic fermentation. Must is pumped into open-top fermenters holding about 35 tons each.

Juice is allowed to settle overnight and then inoculated with Pasteur Rouge yeast. The yeast was raised from a culture in a several hundred gallon temperature controlled tank. If grapes were deficient in acid, tartaric acid would be added before fermentation begins. However, this has not been necessary with recent vintages.

The fermenting must is pumped and sprayed over the cap 2-3 times/day. Open-top fermenters allow us to contact the entire surface area of the cap. Fermentation is usually completed in 5-7 days and then the tank is allowed to drain overnight. The cap, now several feet deep, is shoveled into an auger and pressed, using a bladder press. Press wine normally is added back with free run.

A light gelatin fining may be done (up to 1/8 lb/1,000 Gallons) after induced malolactic fermentation and we cold stabilize. Tartrate stabilization, although not always absolute, adds a softness to the wine. Wine is usually chilled for 2-3 weeks to achieve this softness, rather than for a complete removal of tartrates.

The wine is then given a coarse DE filtration and held in redwood or oak uprights until barrel space is available. Although average barrel ageing is one year, it depends, of course, on the age of the wood and vintage characteristics. SO_2 level in barrels is usually 60-65 ppm total.

After barrel ageing, the wine is reblended and a light egg-white fining may be employed, if found upon lab trials to be advantageous. After egg-white fining, the wine is allowed to settle for a week, then a polish filtration to the bottling room is performed. The wine is bottled with 20-25 ppm free SO_2 and bottle aged for 3-6 months, before release.

Pumping over at Beaulieu.

CALERA

PW: Describe your style:

Steve Doerner: A Burgundian comparison immediately comes to mind, but our style evolves every year because we are still experimenting with the vineyard, discovering the style of wine it can produce best.

Generally, our wines are heavier bodied, richer in style than lighter bodied Pinot Noirs. They are not monster wines that overpower you. The nice thing about Pinot Noir is its' finesse and underlying gentleness.

Alcohol levels have fluctuated between 12-14% depending on the vintage, but just over 13% seems to be the optimum. Wherever the wine is balanced is the most important factor.

The Santa Barbara Pinot Noir from Los Alamos varies slightly in style. While it is still rich and powerful, it doesn't seem to have the allure of our own vineyard Pinot Noirs. The alcohol may be the same or higher than the estate wines, yet it comes across as being a lighter wine.

PW: Describe the vineyard:

SD: We have 24 acres divided into three different sections from which we make three different wines: Jensen, Reed, and Selleck. We purchase grapes from Santa Barbara County, CA for the Santa Barbara Pinot Noir.

Jensen is the largest planting with 14 acres on several different slopes. Selleck has a southwestern facing slope and Reed lies just opposite on a northeastern facing slope. Elevation is 2,200 feet.

Estate vineyards are mainly composed of limestone soil. If we were forced to single out one major factor over another, we would say soil is the determining factor of quality, but in relation to other characteristics of the vineyard as well.

The best Pinot Noir in the world is grown on limestone soil. Whether this is due to the drainage of this type of soil or the structure, or chemical composition, I am not quite sure.

The estate vineyard is extremely remote, in the Gavilan Mountains on a plateau. The land had never been farmed before, and was heavily forested, but was cleared. It is definitely a unique vineyard, just because of its geographical location.

Climate is cooler than the Salinas Valley below, but we receive some Salinas fog. Hollister in the valley can be extremely arid—not the best conditions for growing Pinot Noir. But the vineyard, on that elevated plateau, is much cooler than you would suspect. It is approximately mid-Region II.

Vines were planted in 1975. Two drought years followed and got the young vines off to a hard start. Our well, which supplies the drip irrigation system, went dry. The result was very low yields. Even in 1982, our most plentiful year, we only got close to one ton/acre. The 1983 crop looked to be closer to two tons/acre, which is probably what we'd like to get on an average.

Our vineyards have a few different clones, one direct from Burgundy and the other from a St. Helena, CA nursery. Jensen Vineyard has a mixture of the two, while Reed and Selleck have only the Burgundian clone.

Even though the vines have had a hard time with low yields, we are very pleased with the results. In 1979, we got a total of 7.5 tons from the whole 24 acres and the berries and clusters were very small.

The wine quality is such to make me wonder if we really want to increase yields, because without having to do anything artificial, these low yielding vineyards have produced good quality wine grapes. At the same time, our largest crop in 1982, was our best quality crop ever, or at least we think it will be.

1980 was the first year we harvested from Los Alamos Vineyard. It has pretty sandy soil and no limestone and was planted in 1971. It also has the cool, coastal climate of Santa Barbara which is slightly cooler than ours. Yield is 1-1.5 tons/acre. Berries are big with big clusters and the color is light.

PW: When are the grapes picked?

SD: There is an old rule of thumb that the time to pick is 100 days after bloom. We generally try to follow that rule but you never really know the exact day of bloom, so we use other criteria as well. It has varied from year to year. Because it is a young vineyard, we are still in the experimental stage of pinpointing when each vineyard is at its best in order to make the best wine possible.

We have based our harvest schedule on sugar, looking also at acid and pH. We are beginning to look at potassium content as well. Apparently pH stability, which has been a problem in both our Pinot Noir and the Santa Barbara Pinot Noir, is linked to potassium content. With high levels of potassium, you end up with a higher than expected pH after alcohol and malolactic fermentation. Understanding the whole equilibrium a bit better by knowing the potassium level, may become another factor at harvest.

Normally, we harvest between 23-24° Brix, 1.0 acid, with pH at 3.2-3.3.

PW: How is the wine made?

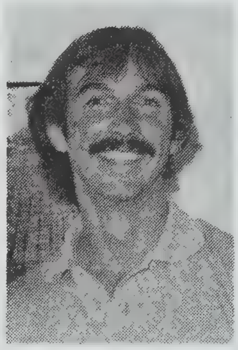
SD: Fruit arrives in 1/2 ton bins. 50% of the fruit is crushed and 50% goes into the open-top fermenters as whole clusters. We may increase the uncrushed portion to 75% in 1983. Whole clusters help extend the length of fermentation.

This is not carbonic maceration, for we are using open-top fermenters and punching down twice a day. As they are punched down, the grapes are crushed. We also feel this is the best way to use stems rather than destemming and then adding back to add stem extract.

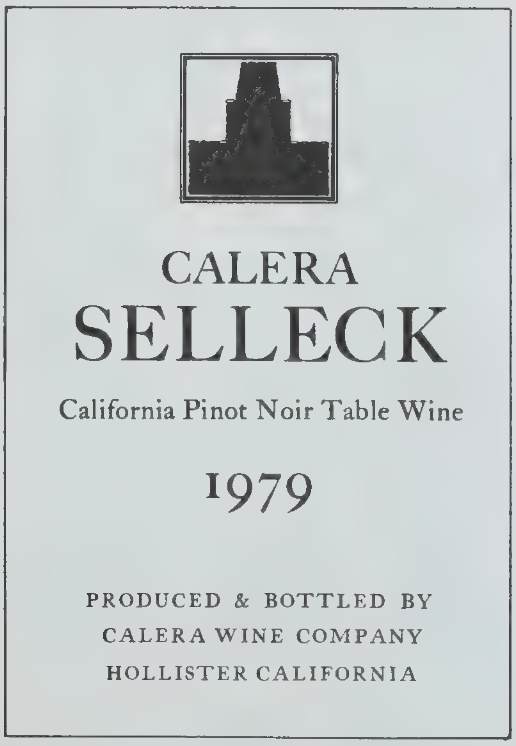
Set-up for minimal handling, the winery is on a hillside and uses gravity to move grapes from bin to crusher, to tank, to press, and on down the line. This is the way we can move whole berries to tank without damaging the grapes.

We are using wild yeasts and no SO_2 at crush. Using wild yeasts helps to prolong the fermentation as well because they are not as hearty and it takes more time for them to build up their populations. It also may add to some of the wines' complexities.

The cap is punched down to the bottom of the tank with a pneumatic punching foot, which is a big piston with a foot that can be adjusted in diameter and has a stroke of 6.5 feet. Tanks are jacketed and the fermentation temperature has been kept between 32-33°C. I am tending towards a slightly cooler



Steve Doerner



CALERA

SELLECK

California Pinot Noir Table Wine

1979

PRODUCED & BOTTLED BY
CALERA WINE COMPANY
HOLLISTER CALIFORNIA

Foaming must added to fermenter containing stems.

fermentation, around 30°C, once again to prolong fermentation as well as retain more of the aromatics.

While you may sacrifice some color extraction from less heat, you gain it back in the length of time in the tank. This also tends to be a more stable form of color extraction. Ten years down the road, you will have an even darker wine than if you had had a shorter, hotter fermentation.

We haven't done much in the way of adjusting acidity up until 1982 because we believe it should be done as early as possible. Prior to fermentation, it is difficult to know just how the added acid will effect the finished wine.

It is easier to justify, if after fermentation, the wine is flat and needs so much more acid. But when all you have is the juice and some numbers in front of you, it is hard to add something just for the sake of adding it. It would be better to try and take care of acid deficiency in the vineyard by learning more about the potassium and bringing the grapes in at a lower pH.

Primary fermentation usually lasts 10-14 days. Generally, we wait for the cap to fall before pressing off, punching down until there is nothing left to punch. If fermentation went a little faster than we may have liked, we may let the wine sit on the skins a while before pressing.

Wines go through malolactic in the barrel. We have in the past couple of years inoculated with 44-40. Pinot Noir goes through malolactic rather easily, so it is not really necessary to inoculate. In fact, prior to 1980, we did not inoculate.

We add 50 ppm SO_2 after malolactic has finished. This is the first time SO_2 is introduced into the wine. By not adding SO_2 prior to fermentation, you are not required to add as much later. This cuts down on your total SO_2 level, which prevents any bitterness, often a side effect of SO_2 and its' by-products.

We use both new and used French oak barrels, a combination of Francois Freres and Sirugue. The wine ages for 16-18 months, depending on the character of the wine each vintage. We have cut back on racking, racking one month prior to bottling into a clean barrel for fining with egg whites and then into the bottling tank.

The wine is not filtered. Filtration of Pinot Noir is a big mistake. There are good Pinot Noirs that have been filtered, I just feel it does not improve the wine. Pinot Noir is such a delicate and unforgiving grape, that if you overhandle it, it will let you know. As we have found with racking; least is best. I'm not saying it is a sin to filter Pinot Noir, but almost.

Pinot Noir changes so much in its lifetime. Our wine gets around nine months bottle age, though I wish it could be given more. Immediately after bottling, it starts this downhill phase. It reaches a low plateau and starts to come back up. One month after bottling, the wine is never as good as it was prior to bottling. With time, they become equal to what they were originally, and with bottle age, they excell far beyond, revealing all the subtleties and layers of complexities.

Our wines are made to age. When young, they can be a little clumsy. Aeration has a dramatic effect on our wine. The difference between the wine when first opened to 25 minutes later is incredible. This superficially shows what ageing can do. I would like to see the wine have three years of bottle age. The 1979 was wonderful in the summer of '83 and yet still had time to reach its' peak.

CARNEROS CREEK

PW: Describe your style:

Francis Mahoney: In the beginning, we had a standard of excellence—Burgundies: their complexities. Today, we are evolving our own California standards using the Burgundian framework: the same oak as Burgundy, same fermentation techniques, and similar picking criteria for lower alcohols.

I want the wine to drink like velvet, with complexities. Our wines have a lasting earth-tar-pepper aroma and 'gout de terrior' (taste derived from the soil) character. Individual vintages will be reflections of the growing season. Some vintages are drinking well 5-6 years after harvest, others have more tannin and will age longer.

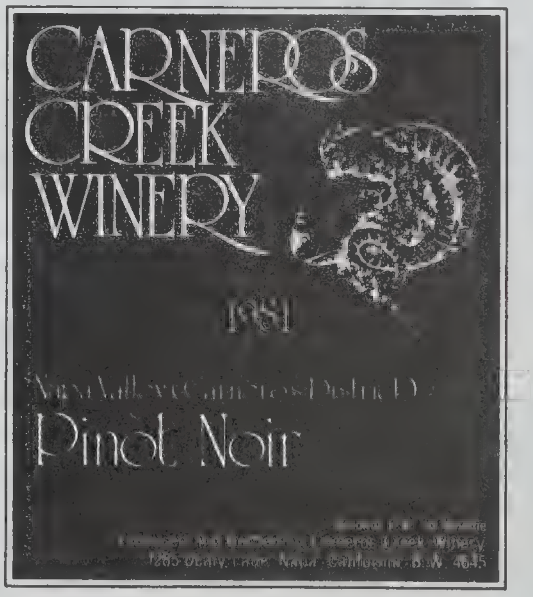
Pinot Noir appeals to a very small segment of the wine market. The image of Pinot has suffered from the quality of wines put on the market in the past.

PW: Describe the vineyards:

FM: We are in the Carneros region, rated region I, with reasonably well-drained, rocky, gravelly, sandy loam soil. Soil depth is about 15-30 inches and the vineyards are sloped to Carneros Creek and/or the north. A typical summer day consists of foggy mornings, highs in the high 70's between 1-5 PM tempered by lots of wind.

We planted 7½ acres of Pinot Noir in 1974 where grapes had never been planted. I liked what Andre Tchelistcheff was doing with grapes from Carneros at Beaulieu and so established a vineyard here also.

I also liked the wines made from the Trefethen Ranch in '72 and '73, so obtained that budwood in the fall of '74 to



Francis Mahoney

graft to AXR1 heat-treated rootstock and St. George (relatively virus-free) rootstock. We have 1½ additional acres also producing now and future plantings will be on AXR1 rootstock.

I tried cordon pruning, but prefer cane where we leave two canes, 8-12 buds and two renewal spurs and yield 1½-2½ tons/acre. During the '76-'77 drought, we installed a drip irrigation system and now use the system to keep the vines in a quasi-vigorous (maintaining a yellowish-green color in the tips) state through the month of August, when we let the vine become a sugar producing machine.

In a season with good rainfall, we may do 3 or 3½ 8-hour settings on the rockier slopes and 2 8-hour settings on minor slopes. We prune in February. Bud break is in early April, set in early June, and veraison is in late August. We usually apply eight sulphur dustings for powdery mildew, the first one week after bud break, the last before the end of July.

PW: When are the grapes picked?

FM: I watch the maturity of the vines, looking for when the fruit changes from dark purple to black, when the fruit begins to get spongy. I want our hand-picked fruit less firm than a properly ripe, yellow banana; but with no raisined grapes. When the grapes taste right, the average Brix is usually 22.5-23.0°, pH 3.2-3.5 and acid 0.9-0.95 (malic: usually 0.4-0.6); picking is usually 3- 4 weeks after veraison.

PW: How is the wine made?

FM: We add 75 ppm SO_2 when crushing with a crusher/stemmer that has no rollers, so a lot of whole berries get through. The high SO_2 addition is to control any possible wild factors while we cool the must.

Stems are collected into containers identified by vineyard blocks. We smell the stems looking for the spicy, peppery character, which we find desirable in Pinot Noir. The peppery stems added back to the must usually come from the rockiest slope.

In years of hot growing seasons, we add back more stems than years of cool growing seasons. For instance, we added back 50% in '77, 30% in '78, 40% in '79, and 15-20% in '80, 20% in '81. As our vines mature (9 years old with the '83 vintage), we are using less stems. The fruit has more peppery character.

We fill our open-top 4,000 gallon stainless steel fermenters about 5-6 feet deep with 15 tons of fruit, lay in the stems, punch them down and add more stems to be punched down and mixed in. Meanwhile, the refrigeration jackets chill the must down to 65°F prior to inoculation, if grapes are hot.

We want peak temperatures of 95°F which volatilize certain off- flavor components. We inoculate 24 hours after crushing by laying 2-3 lbs/1,000 Gal of active dry yeast (Champagne or Montrachet) on top of the must.

On the third or fourth day, we punch down once to mix-up the stems, yeast and must. We monitor the Brix drop/day. At about 18°, we punch thoroughly to break up the cap while pumping over.

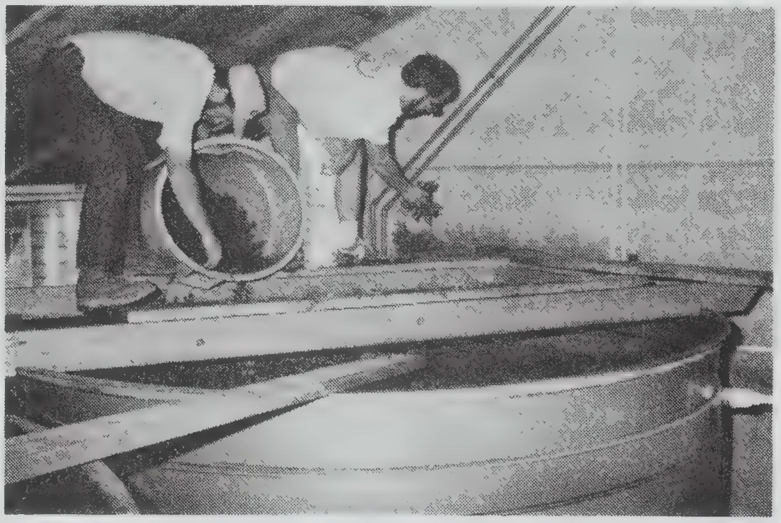
Also at about 18° Brix, we induce malolactic fermentation by pouring a maximum of 20 gallons/fermenter of ML 34 culture prepared in late August. Malolactic has usually completed by the end of fermentation or within 2-3 weeks.

During fermentation, we punch-down/pump-over three times/day to achieve a 15°F drop in the temperature of the cap and must. This stretches out the fermentation to maximize skin contact for flavor and color extraction. At 3-4° Brix, we stop punching and only pump-over twice a day to keep the cap wet. We press off the skins when fermentation has reached dryness.

Pressed wine is settled for two weeks and racked and all lots usually receive 3 or 4 rackings by the end of December. At that time, depending on the solids in the wine, we may do a coarse DE filtration in our pressure leaf filter in order to put clean wine into barrels.

Wine going into barrels, will usually receive a SO_2 addition that will maintain 18-23 ppm free. Barrels are topped about every two weeks depending on the season of the year. I prefer Troncais oak and have used Limousin barrels with standard toast. I use 15-20% new barrels every year and a mixture through five years of age.

Each vintage has had a different barrel ageing requirement, but 9-11 months is usually adequate. Clean, stable wine will receive a tight pad filtration prior to bottling with an SO_2 addition to maintain 20-25 ppm free. The wine receives one year of bottle ageing before release.



Adding back stems at Carneros Creek Winery.

DOMAINE LAURIER

PW: Describe your style:

Stephen Test: Our Pinot Noir is a silky, velvety, complex wine. I like red Burgundies from Gevrey-Chambertin. They have elegant complexity, high acid, and a robust crushed flower character. The wine adapts well to many foods: cheese, veal, lamb, rich poultry, and turkey.

Our '78 and '79 vintages are still improving in '83. '80, a normal year, has not yet been released. '81, a light year, may mature early.

PW: Describe the vineyards:

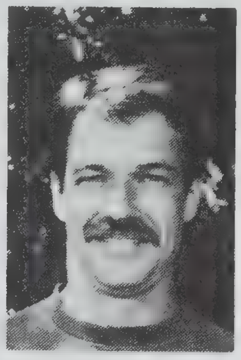
ST: We are in the Sonoma Green Valley, a sub-region of the Russian River valley. Green Valley Creek flows through the vineyard to the Russian River. The valley is a coastal, cool region I (2,200-2,400 degree heat days).

The estate was planted with virused vines in the late 60's and early 70's. Pinot is planted on a hillside block which is drip irrigated, and on bottom land which is dry-farmed and can be temporarily flooded by winter rains. We have basically clay, loam soil and have occasional frost problems in the early Spring.

A typical summer day consists of a foggy morning and warm afternoon with ocean breezes cooling the nights to 50°F. Bloom occurs about the third week in May, set in early-mid June, veraison at the end of July. We usually pick the hillside block in mid-September and the flatland, the first week of October.

Where applicable, we are converting from cane to cordon pruning, leaving two bud spurs to yield 2-3 tons/acre. We

Estate
Bottled
Domaine Laurier
1980
Pinot Noir
Sonoma County
Grown, produced and bottled by
Domaine Laurier, Forestville, Ca U.S.A



Stephen Test

attempt to achieve small berries by holding water during cell division. We average 6-7 sulphur sprays/year.

PW: When are the grapes picked?

ST: When the grapes reach about 16-17° Brix, we begin tracking the TA, pH, and Brix and checking the flavor. Our typical harvest numbers are 22.5° Brix, 0.9-1.0 acid, and 3.2-3.3 pH.

PW: How is the wine made?

ST: Currently, we have 1,000 gallon 3½ ton open redwood fermenters, which someday might be replaced by stainless steel. About one month before picking, we drain the redwood tanks, steam clean, scrub with chlorine solutions, rinse with citric and SO_2 and hot water and soak up waiting for harvest.

Grapes are hand picked into ½ ton bins and given 50 ppm SO_2 in the crusher which crushed all the berries. In '82, we put 10-15% whole clusters on the bottom of the fermenters, topped by crushed grapes. The whole berries are like chaptalization—breaking up slowly, adding sugar to the fermentation, keeping the cap puffed up.

We used French Red culture in the past, but will try Champagne active dry yeast in '83, which is poured in and punched down to thoroughly mix it with the must. We have cold water chiller plates positioned in the fermenters to cool the fermentation if the cap and must are over 85°F after punch down which is done 2-3 times/day.

We have added-back up to 15% stems in the past. We give the wine extended skin contact, maybe a week past completion of fermentation, punching down 2-3 times/day. The extra contact seems to add more complexity, a round mouth feel with silkiness, over lots done without it.

We inoculate with ML 34 culture for malolactic fermentation before primary fermentation completes. The wine is pressed off the skins to neutral uprights, and racked a couple of times until malolactic has finished. Then an SO_2 adjustment to 25-35 ppm free by Ripper, is done.

Prior to '82, we did acid adjustments after malolactic completion. We added tartaric to the fermenter in '82, which was a high malic year to maintain a level of 0.9-1.0 and hold down the pH.

We use a mixture of new and old Burgundian barrels and are now comparing barrels from different forests. Depending on the age of the barrels, the wines will be in barrels from 10-20 months to achieve a complexing element, not a dominant one. Barrel topping is every 1-2 months in winter, every 2-4 weeks in summer.

Fining trials are done, and if necessary, egg-whites have been used. A coarse pad and polish pad filtrations are done. Depending on the pH, the wine is bottled with about 30 ppm free SO_2 and bottle aged one year or more before release.

FRICK

PW: Describe your style:

BILL FRICK: We are trying to make a food wine; something that is delicate, subtle, and can develop some complexity and bottle bouquet. We have found that our Pinots go through some ups and downs in the ageing process, but they get very nice as they get older.

Our '79 has developed some chocolatey/coffee characteristics. The '80 has some leathery characteristics and mushrooms, with an undercurrent of berry or cherry and some coffee.

JUDITH FRICK: '78 is our missing Pinot. It was so bad, it is still in tank and we are never going to bottle it. pH was too high! I imagine there are going to be years when we won't make a fantastic Pinot. That is one of the hazards of the wine art. It is almost as though your mistakes help define what you want to do.

BF: '78 was from big, ripe fruit with high pH. We've had some people through the cellar who tasted it and liked it, but it's not the style we are trying to produce. The initial taste is nice, but it's too soft and Judy hates it. Our '79 is closer to what we want from a Pinot.

PW: Describe the vineyards:

BF: Ventana Vineyard is in Soledad, in the Salinas Valley. It is a cool area, mid to warm Region I. Summer fog cools things down and tends to equalize night and day temperatures. Fog burns off around 11:00 AM. Soil is sandy and rocky. Overhead sprinklers supplement an average rainfall of seven inches, with a high of 20 inches.

Vines are trained on a modified-cane system, pruned to a varying number of buds depending on the condition of the individual plant. Average yield is about three tons/acre (in '80, it was ½ ton/acre).

We've always had a problem of pH from that vineyard. Over the eight years we've been working with it, we've been picking earlier and earlier to compensate. We pay more attention to pH and acid, than to sugar. In '82, we picked around 22° Brix, with a TA of 1.2 and pH of 3.3.

Problem is that it's 35-40% malic acid, which drops out during malolactic fermentation. We also lose a lot of tartaric acid during fermentation. I don't know if this is a function of the grape or the vineyard. In any case, we try to bring the grapes in with enough acid, so that an acid addition will be unnecessary.

PW: When are the grapes picked?

BF: Grapes usually come in between the last week of September and the 10th of October.

PW: How is the wine made?

JF: We have the least mechanized operation imaginable. We pitchfork grapes into a little hand-crank basket crusher, now motorized. Grapes are pumped into five redwood fermenters ranging in size from 550 to 1,100 Gallons. We probably add less than 30 ppm SO_2 at crush, to prevent wild yeast fermentation.

For yeast, we use Assmanhausen, Burgundy, a proprietary yeast, and others. Sometimes, we'll blend the yeasts in one tank; sometimes we'll ferment different lots on different yeasts.

We punch-down about every four hours, more often when it is really active. We water the outside of the tank to help cool the must at the most active part of fermentation, keeping the peak temperature under 98°F. Fermentation takes from 7-22 days.

Sometimes we add back stems, depending on the taste of the grape. If the grapes are light and sweetish, we won't put in as many stems. Stems add tannin and a woodyness. We have added as much as 75% stems.

BF: We usually inoculate for malolactic just before primary fermentation goes dry. Malolactic usually stops in the winter and starts up again the following summer.

We press in a hydraulic vertical basket press just after primary fermentation stops. We taste the wine and when it begins to get bitter, we stop pressing.

The wine goes into medium toasted Center of France barrels (you can't be sure what wood it is) coopered by Seguin Moreau. We use a mixture of new and used oak; most of the barrels have been used once for Chardonnay or Pinot Noir. We are not looking for that sharp toastiness that comes from barrels.

We rack in about 2-3 months, then not again for six months. We might rack another time or two, only to achieve clarity. Barrels are topped about once a month. Wine stays in barrel 12-18 months.

We have never fined or cold stabilized. Fining would change the flavor and color. We prefer to filter. Some people fine to make it immediately more drinkable, softer and less bitter, but I think those things are better taken care of with time in the bottle.

Just before bottling, we adjust the SO_2 to between 10-30 ppm. If the pH is low, we won't add as much. We do a depth filtration into a steel tank, using a cartridge filter between 0.6-1.0 micron, before bottling. We bottle age for about a year, before release.

LA CREMA VINERA

PW: Describe your style:

Rod Berglund: The grace of Pinot Noir is a velvety, silky feel that is lacking in other red wines. It's a sensuous quality instead of an intellectual quality. You don't have to analyze it; you can just sit there and enjoy it as it enfolds and envelopes you.

I don't think we're close to what we'd like to achieve. It's an elusive quality in Pinot Noir that comes with some bottle age. Our '79's are beginning to have some of that character in 1983.

We're breaking our Pinot Noir down into several different sub-lots, making each one slightly different. Our theory is that by blending back fractions we can create a more complex wine instead of trying to average out a blend of all these different factors.

In practice it seems to work. Wine fermented on the skins eight days and 18 days is going to be a whole lot different than if you just pressed it all in the middle.

The '79's are medium in weight and depth and are developing well in the bottle. '80 was a superior vintage. Based on the numbers and the overall balance and structure of the wines, we'd like to think they'll age fairly well, but at this point we haven't the slightest idea how long they will age.

I tend to like Burgundies very old. I don't know if it's due to fruit or winemaking techniques, but most California Pinot Noirs seem to show best with only moderate ageing. When they get to the point that they begin tasting old, they have generally lost a lot of their charm, where the Burgundies have not.

The way to market Pinot Noir is through education. The most difficult thing with Pinot Noir is getting someone to taste it for the first time. If we get them to taste it we usually create a fan for Pinot Noir and also for our style of Pinot Noir. Our Pinot Noirs are not the big, dark, tannic monsters that a lot of people have come to expect from California.

PW: Describe the vineyards:

RB: We buy all our grapes. Our first vintages were from Winery Lake and Ventana Vineyards. It may not be economically feasible to continue with Winery Lake, but we're going to continue using Ventana grapes, and we're going to be continuing with two vineyards in Sonoma County, a tiny one overlooking the Russian River, and the Vineburg Vineyard.

We get all the grapes from the nine and a half acre Vineburg Vineyard in the lower portion of Sonoma Valley, and we con-

Open-top fermenters punched down by Rod Berglund at La Crema Vinera.

trol the viticultural practices. It's as close as we can come to an estate vineyard.

The Vineburg area has just been included in the final approval of the Carneros appellation. It's a little bit more sheltered than vineyards in the lower Carneros next to the bay, so it doesn't get as much fog intrusion. The fog burns off earlier, the days are a little warmer, the nights a little cooler.

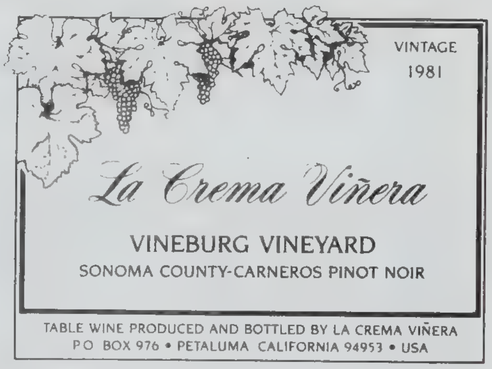
There is greater temperature variation than in lower Carneros, but it's still a very cool area. We've never done a heat summation out there, but I'd guess it to be a mid-to-high Region I.

The soil is fairly well-drained sandy loam. We drip irrigate in the middle of summer so the vines aren't prematurely stressed. The vineyard was mismanaged in the beginning (it's a ten year old vineyard, and didn't start producing until the seventh year), so there is a lot of retraining going on.

It has been cane pruned, and the vines are being retrained to a higher trellising system so we can get better air circulation to combat dampness and rot. Also, more leaf exposure will be very valuable for photosynthesis.

Petiole analysis is done every year to determine what needs to be put into the soil. You can do soil analysis, but it doesn't really tell you what the plant is utilizing. Petiole analysis tells you exactly what the plant is picking up and what it might be deficient in, so it's a really nice tool. I like to see a yield of 2½ tons/acre or less.

Rod Berglund



VINTAGE
1981

La Crema Viñera

VINEBURG VINEYARD
SONOMA COUNTY-CARNEROS PINOT NOIR

TABLE WINE PRODUCED AND BOTTLED BY LA CREMA VIÑERA
P O BOX 976 • PETALUMA CALIFORNIA 94953 • USA

We don't know what the clone is, but we're happy with what we've got. The one thing that comes up is, yes, there are a lot of different clones, and they do produce different wines, but just because you take a clone from a vineyard that produces superior wine, doesn't mean you will make superior wine. Move that clone to a vineyard next door, and the chances of producing anything resembling the wines made from the parent vineyard are slim.

Not only are the wines different, but the vines and the clusters look different. Even though you have better odds of getting good fruit with certain clones, the grapes tend to adapt themselves to the place where they are planted. The grapes off the Vineburg vineyard have a nice cherry note in the flavor. They also have a lot of mint, but we're attempting to control that by getting rid of some of the eucalpytus trees in the area.

PW: When are the grapes picked?

RB: When we pick the grapes, I look for lower sugar levels to start with. For maturity levels, we look at total acidity, pH, condition of the vines and grapes, and taste. Ideally, we'd like to pick them around 21-22.5° Brix.

I don't like them going over 23°, which often creates an overripe plummy, jammy character. I like a clean, lean Pinot Noir in its youth. I think it will develop the perfume, the depth, and the complexity with bottle age. We generally pick Vineburg about September 15th.

PW: How is the wine made?

RB: We will add SO_2 if the condition of the grapes is less than optimum; if we start getting juicing, or if the grapes are warm. If the grapes are sound, we won't add any SO_2. We have a Demoisy destemmer/crusher which allows us to add in a percentage of stems and whole berries. I've tried to estimate the number of whole berries and it runs between 25-50%.

Whole berries keep the fermentation going a lot longer. Our fermentation usually lasts up to about three weeks, although we press portions of the must at different times, beginning at about 8-10 days.

Pressing is really based on gut reaction, watching tannin levels, and flavor characteristics of the wine. There is no real formula. We also monitor the V.A. level. If it starts to rise and there is something we want to put a stop to, we press it and put it into a closed stainless steel tank to get it out of the oxygen rich environment of the open top fermenters.

We were adding back whole clusters, but we've gotten away from that since we got the Demoisy because when we add the stems back we want to make sure they're clean and preferably as close to brown as possible. When you add whole clusters, you also add in any mold that may be present along with it.

The amount of stems varies from 0-100%, depending on what the grapes taste like. We've noticed that time on the skins has a tremendous effect on both tannin levels and color.

If you want a big tannic wine, you better not let it sit on the skins too long, because the tannins tend to become reabsorbed, especially by stems, and the color begins to drop out.

I made three lots of the 1980 Winery Lake, pressing at different times, and the one that was on skins the longest time had the color of carbonic Beaujolais and had no tannin, but it had the most incredible perfume and flavor. As a normal practice, if the grapes are sound, we soak the juice on the skins in the fermenters for a couple of days before we inoculate.

As far as yeast is concerned, we use Pasteur Champagne 595, and experimentally we've used a wild yeast strain that we isolated from Winery Lake Vineyard. We're very pleased with the results of the wild yeast: it's fermentation curve looks like Champagne yeast and SO_2 doesn't seem to affect if a whole lot.

We'll be experimenting with the wild yeast in 1983 with an eye toward making that our in-house yeast. We do not want to go the route of spontaneous fermentation anymore, because it's too risky.

Occasionally, we will remove a portion (usually about 10%) of the free run juice from a particular lot of grapes at crush in order to achieve a higher skin to juice ratio and thereby increase the color and varietal character in the resultant wine.

We have used 220 gallon fiberglass lined picking bins with a great deal of success. In 1983, we're going to be using 600 Gallon open top stainless steel tanks. We've tried redwood, but redwood holds in the heat and it's hard to sanitize.

We punch-down about eight times/day during the peak of fermentation. The lowest temperature we've peaked at was in the high 80's. The highest was around 95° F. We're shooting for the low 90's. We don't want it to cook there, but we'd like to see it stay there for several hours.

After the cap begins to fall, we cover the open topped fermenters with plastic to keep the CO_2 in. Once or twice a day, we pull off the plastic and stir it up, getting berries off the bottom.

Typically, we inoculate for malolactic just before we press. We have a very slow horizontal plate press. We'd like to get a tank press. We press at such a light pressure, that we have no true press wine. We press at different times; some fairly early, some fairly late. Pressing releases some sugar from the whole berries and extends fermentation a short time.

After pressing, the wine will go into a tank for 2-5 days to settle out the gross lees. Racked off the lees, the wine goes directly to barrel.

We use traditional Burgundy barrels, we're allowing the cooperage to select the wood. The coopers have all tasted our wines and we've tasted Burgundies with them, so they know what we're trying to achieve. I think we are going to get some very consistent barrels in this way.

We won't specify the wood except to say that we don't want Limousin. We do want a medium char. We mainly use Francois Freres and Tonnellerie de Bourgogne. Most of the barrels have had Chardonnay in them for one year.

We are experimenting with racking. One lot we don't rack until bottling; another, we rack every 60 days for the first 10 months. Another is racked two or three times during the 11-15 month barrel ageing.

The first racking typically takes place in the late Spring or early Summer. At the first racking, we add about 20-30 ppm SO_2, top the barrel and roll them and there they will sit until after crush.

After barrel ageing, we will give the wine an egg white fining if it's needed. Otherwise, we'll give it a polish filtration and bottle. Previously, we've been using a 1 or 1.2 micron cartridge filter.

We are going to use a plate-and-frame with coarse pads. We add 25-30 ppm SO_2 at bottling. We bottle age it for 6-12 months. Our future program calls for bottle ageing for a minimum of one year, before release.

LOUIS M. MARTINI

PW: Describe your style:

Michael Martini: My father's style of Pinot Noir since 1933 has had an Italian influence—pure fruit, non-oaked, cool fermentation and no stems. I first began working in the winery in 1977, and began making changes in vinification in 1979-80. In 1981, I made a trip to France with Andre Tchelistcheff and studied techniques in Burgundy. I don't want to make Burgundian Pinot Noir which is a matter of style—soils and production techniques.

My concept of Pinot Noir is soft, feminine, round, and full. Our style has traditionally been similar to Domaine Trapet of Gevrey-Chambertin, France—straight-forward fruit initially, bottled aged into complexity. The Italian style accents varietal character. I want to keep that accent but build initial aromatic and structural complexity into our presently fruity wine.

I have experimented with oak ageing. With the 1977 vintage, I used a new American oak 6,000 Gallon tank on Pinot from our La Loma Vineyard. I found that American oak was not the best marriage. With the 1978 vintage, I used one French barrel from each of four forests: Allier, Limousin, Nevers, and Troncais. I liked Troncais best.

In 1979, I used ten barrels from Troncais and ten from Nevers. I really like the citrusy (lemon-orange) character that Troncais imparts. I used 60 Troncais barrels in 1980 on 7% of the regular blend. I am looking for the ideal percentage of the blend to be oak aged. Two '81 lots have 12% aged in new barrels and the regular lot has 6% barrel aged wine.

In 1981, I tried an experiment to rearrange the phenolics distribution. With the first 30 ton lot to arrive, we added back 15% stems, pumped over regularly until the seventh day when the wine was less than 1° Brix. The tank was sealed and the wine left alone for seven days before racking and pressing. SO_2 gas was injected over the cap, to keep the cap from acidifying. Net result was too much harshness. Other '81 lots were racked and pressed 11-12 days after inoculation when I observed a balance in mouth flavors.

Regarding stems, I don't want to smell or taste stems in the wine, but I want the breath and tannin in the structure and mouth and the spice in the bottle ten years later. I began adding back stems in 1981. The lots from warmer climates with riper grapes get 10-12% stems returned.

In 1981, the wines were deep purple coming out of the fermenters, but some color and tannin dropped out later. I have two theories for that:

1) Harvest was two weeks earlier than usual, meaning an earlier growing season, and a higher malic content as there was a big pH jump after malolactic completed. I feel the length of light day in conjunction with earlier maturity of the vines changed the bio-chemical balance. Pinot in warm years does not hold color as well.

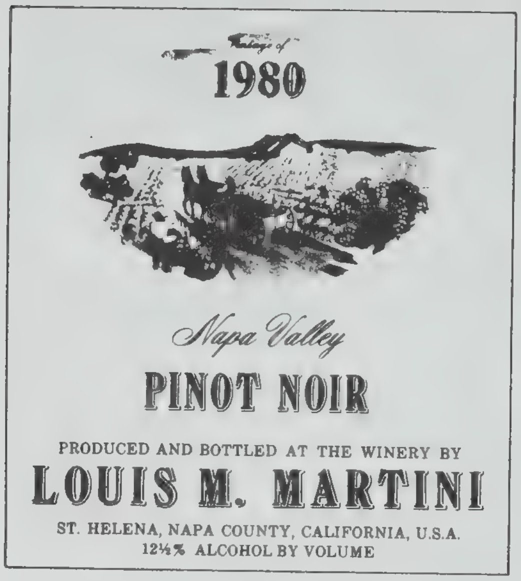
2) The first production lot that year had stems added back (stems add some things, and take other things out). That lot did not drop as much color. I left 1982 lots on skins for 12-13 days with 10% stems added back and there has been little change in pH or loss of color. '82 was a much cooler growing season.

In 1982, I laid 2% whole berries on top of two fermenters plus adding back 10% stems. The whole berries were mixed in on the following day, and the result was a nice addition of Beaujolais character. I planned to repeat this experiment again in '83.

We have three possible types of bottlings: Regular, Vineyard Selection or Special Selection. Special Selection has more bottle ageing potential due to longer oak ageing, higher tannin levels, more intense fruit and color, and is usually released five years after the vintage (including 2-3 years bottle ageing at the winery).

Regular is released with six months bottle age and the Vineyard Selection has one year of bottle age when released three years after vintage. Regular has been priced at $5.50,

Adding whole clusters to Louis M. Martini fermenter.

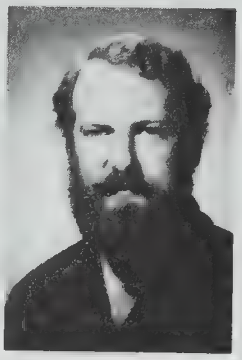


Vintage of
1980

Napa Valley

PINOT NOIR

PRODUCED AND BOTTLED AT THE WINERY BY
LOUIS M. MARTINI
ST. HELENA, NAPA COUNTY, CALIFORNIA, U.S.A.
12½% ALCOHOL BY VOLUME



Michael Martini

Special Selection-50% more, and Vineyard Selection 100% more than Regular.

First Vineyard Selection Pinot Noir released was from the 1977 vintage—La Loma Vineyard. A Special Selection has been released every year since 1955, and Vineyard Selections will be consistently released each year from the 1979 vintage on.

PW: Describe the Vineyards:

MM: Each of our four vineyards have three clones of which many are virused vines. Los Vinedos Del Rio Vineyard on the Russian River is machine harvested, yields 3-4 tons/acre. Rated a medium Region I, the soil is too rich and the head-trained vines are irrigated by overhead sprinklers. Fruit is simplistic, lacking complexity, but has good color.

25% of the regular blend comes from the Hailey Ranch, on the south side of Rutherford Crossroad, 1/2 mile from Silverado Trail. Well-drained, gravelly soil yields 3-4 tons/acre and is rated high Region I-low Region II. Cane-pruned vines are hand-picked and the fruit is very spicy, has high astringency and low bitterness.

La Loma Vineyard located in the northeast corner of Carneros (cool Region I) has 40 year-old vines which yield 1½-2 tons/acre. The vines are dry farmed and stressed in the three foot soil of clay-loam. There are many head-trained vines and the vineyard is ¼ machine-picked and ¾ hand-picked.

Las Amigas Vineyard (medium Region I) was planted in 1964 and yields 3 tons/acre. Drip irrigation was installed in 1981 to give two water applications/year to help hold the leaves on the vine until harvest. Cane-pruned vines are machine-picked.

Las Amigas and La Loma are pruned late, in January to counter eutypa dieback and postpone bud break.

PW: When are the grapes picked?

MM: Hailey comes in first. First grapes are picked at about 21.5° Brix and 0.75-0.8 acid, 3.3 pH. It takes three days to harvest the whole vineyard, and the last grapes will be about 25° Brix with 0.65 acid.

Los Vinedos Del Rio is harvested usually about mid-September between 22-22.5° Brix, with 0.75 acid and 3.3 pH. Las Amigas comes in about September 15th, beginning with 22° Brix and 1.0 acid; the last grapes are 24° Brix and 0.9 TA, with an average pH of 3.2.

La Loma is picked between October 10-15, starting at 21.5-22° Brix and 0.8 acid, finishing with 24° Brix and 0.7 acid.

PW: How is the wine made?

MM: At crush, 60-80 ppm SO_2 is added. We use Champagne yeast and malolactic fermentation occurs naturally. We allow the fermentation temperature to reach 75-80°F and then chill to 60°F until 10-12° Brix has been reached. Then we turn off the cooling jackets and allow fermentation to peak at 85-90°F which maximizes extraction. Pump-over is done twice a day.

After fermentation, the wine is settled for two weeks, racked, and racked again before Christmas. Wine is then put into oak with an SO_2 adjustment to 30 ppm free.

To clarify the wine, we usually add ½ lb/1,000 Gallons egg whites. The wine is cold stabilized at 27-28°F for two weeks. A medium DE filtration is done in a pressure leaf filter. The wine goes through a coarse pad filter ahead of the bottling tank and is bottled with 30 ppm free SO_2.

SANTA CRUZ MOUNTAIN

PW: Describe your style:

Ken Burnap: My style of Pinot Noir is one that strives for maximum extract and intensity you can get from skins. It is deliberately structured and made for very long bottle ageing.

The most exciting aspect of any red wine is bottle bouquet, and that just doesn't happen short of 12-18 years. I realize that in this highly mobile society, I'm making wine for a vanishing breed of American. Most people don't want to pack up a large wine cellar every time they move.

I'm still fine-tuning the style, because I'm not completely happy with any of the wines I've made. I'd like to make wines with the same intensity, and the same ability to bottle age. I want them lower in alcohol, and with a little more finesse, but we won't be taking quantum leaps in any one direction because I don't want to lose the intensity that I've got.

We have to talk about very small increments of time when talking about ageing potential, because we haven't been making wine that long. I recently did a vertical tasting of my wines, and this is an opportune time to talk about how they age. The '75 was still slightly closed-in, very minty, with a long clean finish, and was beginning to soften, but it still seems very young.

We have not noticed any adverse affect of volatiles at the time of bottling on the ageing of any of the wines. In fact, the '75 smelled less of V.A. last week than it did three years ago. I'd estimate it will continue to improve for at least three years and you should be able to hold it for another two years after that.

The '77 had a more complex series of aromas than any of the others, but it seemed that it wouldn't go as far as the '75. I'd say the '77 should be watched very closely over the next 2-3 years. It's close to everything we could want it to be.

The multi-vintage '78/'79 Pinot has improved incredibly over the last eight months. Last November, it showed very volatile, but it's showing nicely now. Because we have 30% of a 1979 Monterey Pinot in it, I have a hard time gauging how it will develop. I don't think it is a long-lived wine, and will begin to fall apart in another three years.

There is no question that the '79 estate Pinot will be the longest lived of any of the wines I've made. It's very tightly structured, very hard, and it's the most tannic of all the wines I've made, but it has deeply layered intense fruit that will outlast that tannin.

Unfortunately, there probably won't be any left in 16-18 years. I can safely say this wine will age 7-9 years, and I have a strong feeling that is a very conservative estimate.

PW: Describe the vineyards:

KB: There are 13 acres, planted in 1970 on its own rootstock, with what is generally known as the Wente clone, from grapes that Davis brought over from the Vosne-Romanee area.

The important thing is that you have a true Burgundian strain of Pinot Noir, not some ersatz Beaujolais or Gamay. But the clone is essentially meaningless, because when you plant it in your vineyard it is going to eventually mutate to what it wants to be in that vineyard, and even in that particular part of that vineyard.

This vineyard was originally planted to one clone of virus-free Pinot Noir. Now it has virus in it and there are 16-20 easily identifiable clones. I've had vines go from non-winged clusters to winged clusters. There will be 10 or 12 vines in a row that mutate in one way to the particular mini-microclimate in the vineyard.

I'm always fascinated when somebody says they have the Romanee-Conti clone—I always wonder which one of the 70 or 80 clones in the 4 acres of Romanee-Conti they have.

This vineyard was virus-free when it was planted, but that doesn't mean a hell of a lot with Pinot Noir (it's full of virus now). I don't think I'd want to make Pinot Noir from entirely virus-free plants which have larger, more beautiful berries. Consequently, they have a larger ratio of juice to skins, and produce a duller, less interesting wine.

Virus also limits the yield. We prune for 1 ton/acre, and we've only reached or exceeded that twice. Normally we get 7/10ths. In 1979, our largest production, we got 1¼ tons. We cane-prune on a single wire trellis. The biggest, strongest vine will have a total of perhaps 3 canes and 6 buds to the cane. Most vines (planted 8 X 12) have 2 canes and 4-6 buds.

My vineyard is dryfarmed. We've had rainfall from 16.5 inches in 1977 to 92 inches last year. According to the records that go back almost a hundred years, the average is supposed to be about 47 inches. The water holding capability of the soil is somewhere around 23 inches of water.

The terrain is comparatively steep, top of the vineyard is at 1,600 feet. The soil is poor, shallow and exceedingly well-drained. It's Hugo loam shot full of prehistoric marine calcareous deposits, fossilized shells.

In a typical year, we sulphur-dust three times, and never later than 45 days before the harvest. We've never used fertilizer, but we do disc the pomace back into the soil. We will have the soil tested in 1983 to see if there are any deficiencies. This has been a continuous vineyard for 120 years, and the soil must be rapidly approaching total depletion.

This is a medium to low Region I. We keep temperature records daily, and our average will be between 2,200-2,250 degree days. We're close to Monterey Bay, which stabilizes the temperature, but even so we have fairly low temperatures every night—even in August and September. We have a cyclical fog pattern that typically sees 10-12 days of sun, resulting in 3-4 days of high fog that lasts until 10:00 AM. Because of the air flow, we have no frost problem.

We've never had two years the same, so I couldn't say what a typical year is supposed to be. Our season has ranged from 105 to 123 days between bloom and harvest.

PW: When are the grapes picked?

KB: The earliest we've ever picked was on September 1st, 1981, and that was a good three weeks earlier than ever before. Except for that year, they have been picked between the 18th and 28th of September.

I like to see a slight dimpling of the grape before I pick. Vineyard conditions are such that we have very high acidity and low pH, and I find that I have to pick more to acidity and pH than to sugar.

I prefer to pick with the acidity between 0.93-0.99. Typically the pH is 3.1 and the sugar 24.5-25.5° Brix. I'm going to see if I can't live with higher acidity and lower pH, to see if I can gain the benefits I feel come with lower sugar.

I much prefer the floral aromas I got with the '76 over any of the other vintages. We got that at 21° Brix, and I'm convinced there is a very fascinating complex aroma in Pinot at around 20-21° Brix that you lose when it goes over 22.5. There is a lot of room for fine tuning.

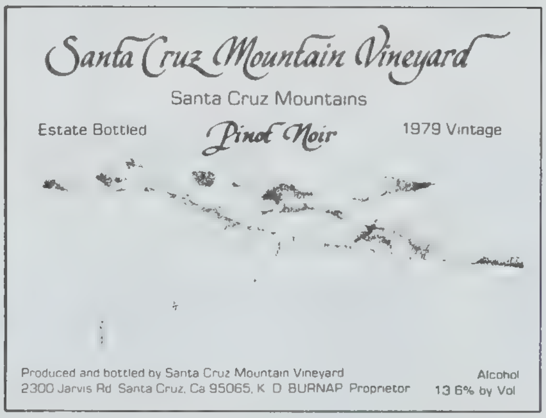
Grapes are picked with shears into fiberglass lug boxes that hold about 29 pounds. Grapes are crushed within 20 minutes of harvest into a Zambelli destemmer/crusher. The crusher/stemmer sits on the roof over four open-top stainless steel fermenters (7 foot diameter, 6 foot high) and the fruit drops directly into the tanks. From crusher to bottle, the wine is moved by gravity.

PW: How is the wine made?

KB: We add between 0-20 ppm SO_2 at the crusher, depending on condition of the grapes. Grapes are brought in very cool—last year averaged 48°F.

Because of the cool temperature and our reliance on wild yeast, fermentation takes a few days to get started. Once our wild yeast gets going, it's very efficient. As far as alcohol tolerance is concerned, my wild yeast will outperform any cultured yeast that I'm aware of.

Ken Burnap



Santa Cruz Mountain Vineyard

Santa Cruz Mountains

Estate Bottled

Pinot Noir

1979 Vintage

Produced and bottled by Santa Cruz Mountain Vineyard
2300 Jarvis Rd Santa Cruz, Ca 95065, K D BURNAP Proprietor

Alcohol
13.6% by Vol

I've had wines that I've taken out to 16.4% with wild yeast from this vineyard, and at the same time I carried out experiments with cultured yeasts that were supposedly alcohol tolerant, and in reality those little pedigreed bastards just punked right out at around 13% alcohol.

We do not add back stems. Fermentation starts around 50° and peaks at about 92°. The cap punching program increases in frequency and severity as the fermentation progresses, until we get to a maximum of about 8 times/day. The total time Pinot is in fermenters will vary between 17-21 days before pressing.

Pinot is usually dry about 2 days prior to pressing. When the must no longer produces its own carbon dioxide, we cover the tanks and blanket it with carbon dioxide gas from a bottle.

The wine is pressed in a very small horizontal plate press. From there it goes into closed tanks to settle out gross lees.

Then it goes into barrels, primarily Limousin, but also Troncais and Allier. I replace about a third of my barrels every year. We're in the process of switching over entirely to Francois Freres with a very light toast.

Barrels are a combination of one third new oak, one third

Ken Burnap punches cap at Santa Cruz Mountain.

barrels that have had one vintage in them, and one third barrels that have had two vintages in them. The wine stays in barrel for about two years before being bottled. The barrels are topped every 60 days until malolactic is complete, and afterwards every 14 days.

We do not inoculate, but the wine does go through malolactic. It's very erratic—it might be done by February, or it may not start until June. We don't rack again until malolactic is complete.

I think there is more damage done to the wine by cold stabilization than there is to your psyche by a few harmless crystals bobbing around in the bottom of your glass, so we don't cold stabilize.

About a third of the wines have been fined. Through the '80 vintage the only fining agent we used was egg whites, but after running some trials using gelatin, egg whites and a combination of egg white and gelatin, we decided on a light gelatin fining for our '81.

Only about a third of our vintages have been given a polish pad filtration prior to bottling. We basically filter only for clarification.

We try to intermix the wine in the barrels in the two years they spend in the cellar, but prior to bottling we evaluate all the wines and work out some homogenous combination of the barrels, so that the end product in the bottle is the same, bottle to bottle.

Generally, when the wine is bottled, there is 4-5 ppm free sulphur and 25-30 ppm total. It will be in bottle between 18-24 months before release.

PINOT NOIR WINEMAKING SUMMARY

WINERY	HARVEST CRITERIA	YEAST	STEMS OR WHOLE BERRYS IN FERMENT.	CAP MANAGEMENT	MALOLACTIC BACTERIA INTRO.	COOPERAGE & LENGTH OF TIME	TREATMENTS
Acacia Larry Brooks	under 22.5° Brix	prepared	7% whole clusters	punch-down 4 times/day	automatic	50% new 50% 1 yr. old French oak 10-11 months	fining trials determine agent used, polish pad filtration if needed, cold stabilization
Beaulieu Diana Burnett	23° Brix 0.9-1.0 TA 3.1 pH	Pasteur Rouge	none	pump-over 2-3 times/day	induced	American oak barrels 12 months	coarse DE filtration cold stabilization egg white and/or gelatin fining if needed polish filtration
Calera Steve Doerner	23-24° Brix 1.0 TA 3.2-3.3 pH	wild	50-75% whole clusters	punch-down twice a day	induced	new & used French oak 16-18 months	egg white fining
Carneros Creek Francis Mahoney	22.5-23° Brix 3.2-3.5 pH 0.9-0.95 TA	Champagne or Montrachet	add back 15-20% stems	punch-down, pump-over 3 times/day	induced	1-5 year old French oak 9-11 months	coarse DE filtration if needed tight pad filtration
Domaine Laurier Stephen Test	22.5° Brix 0.9-1.0 TA 3.2-3.3 pH	Champagne	0-15% stems 10-15% whole clusters	punch-down 2-3 times/day	induced	new and old French oak 10-20 months	egg whites fining if needed. coarse pad and polish pad filtration
Frick Bill & Judy Frick	22° Brix 1.2 TA 3.3 pH	Assmanhausen or Burgundy	stems	punch-down 6 times/day	induced	new and used French oak 12-18 months	depth filtration
La Crema Vinera Rod Berglund	21-22.5° Brix	Champagne, wild	20-25% whole berries, 0-100% stems	punch-down 8 times/day	induced	Burgundy oak 11-15 months	egg white fining if needed pad filtration
Louis M. Martini Michael Martini	21.5-22.5° Brix 0.75-1.0 TA 3.2-3.3 pH	Champagne	0-10% stems 0-2% whole clusters	pump-over twice/day	automatic	French oak 6-12% of blend	egg white fining cold stabilization
Santa Cruz Mtn. Ken Burnap	24.5-25.5° Brix 0.93-0.99 TA 3.1 pH	wild	none	punch-down up to 8 times/day	automatic	new—2 yr. old French oak 24 months	gelatin or egg white fining if needed polish pad filtration if needed

TASTING NOTES

Pinot Noir Tasting

Ken Brown, Zaca Mesa Winery, Santa Ynez Valley
Steve Test, Domaine Laurier, Sonoma
Bill Frick, Frick Winery, Santa Cruz
Larry Brooks, Acacia Winery, Napa
Rod Berglund, La Crema Vinera, Sonoma
Don Neel, Editor-Publisher, Practical Winery
Ken Burnap, Santa Cruz Mountain Winery, Santa Cruz
Mike Richmond, Acacia Winery, Napa
Scott Clemens, staff writer, Practical Winery
Michael Martini, Louis M. Martini Winery, Napa
Diana Burnett, Beaulieu Vineyards, Napa

Winemakers interviewed were invited to submit samples for collection of descriptor notes from vintages (currently available or past) which best exhibited their style of winemaking. Wines are listed in the order they were tasted and discussed:

Tasting at Acacia Winery, July 1983.

1968 Louis M. Martini, California Mountain, Special Selection

Comments before the unveiling:

Clemens: Remarkably youthful for its age.

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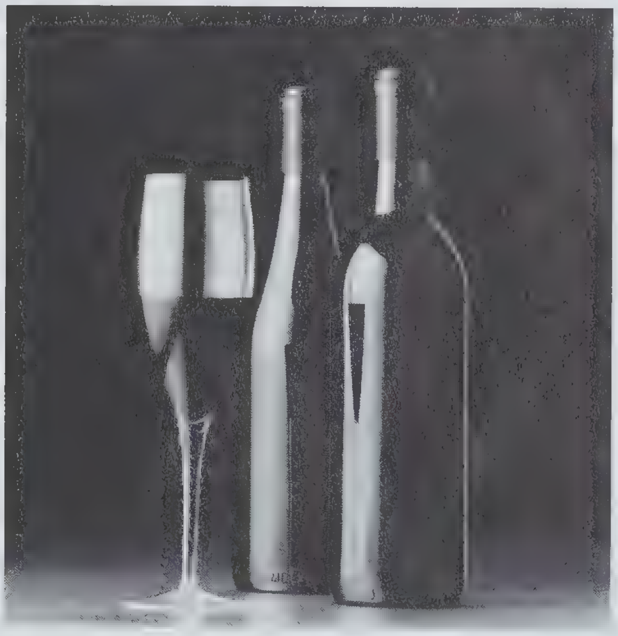

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Brooks: I don't agree. It has a typical old-wine character.

Clemens: It's developed, but doesn't have any of that mushroomy quality, most wines of this age have.

Test: It's just this side of dead. It has a cheesy, mature nose. I'd be proud to have this in my cellar, but I'd drink it fast.

Brown: It was impressive for its age.

Comments after the unveiling:

Neel: Label says California Mountain Pinot Noir, which mountain?

Martini: We labeled everything 'mountain' in those days. The fruit was actually from a Carneros vineyard, and it didn't see any oak.

Color: deep ruby with browning center

Aroma: mature, spearmint, violets, light earth

Flavors: plummy, pruney, antique California flavor, some mint, light earth, soft

Balance/Finish: light body, little tannin, fine acid, velvety, fragile, short hot finish

1968 Beaulieu Vineyards Beaumont Pinot Noir

Comments before the unveiling:

Brooks: It was murky and could have stood decanting. It still had some tannin left.

Burnap: It had a cooked aroma. My impression was that it was from a warmer growing area than the first wine. There wasn't much varietal character.

Martini: There was an over-oxidized oak character to the aroma.

Berglund: I thought it showed more of a winery style than a varietal characteristic.

Neel: I'm surprised it still has so much tannin.

Martini: But it doesn't have the fruit to back it up. The tannin outlasted the fruit. I think Ken is right—it's probably from a warmer region.

Comments after the unveiling:

Burnett: There was a small portion of Carneros grapes in this one (30% at most), and I thought it would be an interesting comparison with the other Beaulieu wines today that are entirely from Carneros. Majority of grapes for this one were close to Rutherford and the winery.

Berglund: I obtained a partial case of this in '69 from someone who bought it from the winery the day it was released and put it in an impeccable cellar. We've had several bottles over the last year and each one has been absolutely different. A couple have been magnificent, youthful, and others have been over the hill. There is definitely bottle variation.

Burnett: I think that was more common then, than it is now.

Color: browning, lots of sediment

Aroma: cooked, raisiny, musty, cedar, pickles, ethyl acetate, oxidized

Flavors: ripe pruney-chocolate, light fruit, French oak

Balance/Finish: medium body, evident tannin, short clean finish

1976 Beaulieu Vineyards, Los Carneros Region, Napa Valley

Comments before the unveiling:

Brooks: Deep black color. The French would say off-Pinot color because it's so dense, but I like dense colored wines so I think it's lovely. It has some tannins in the front of the mouth, but it has the fruit to back it up, cherries and mint. I think this is going to be a long-lived pretty wine.

Martini: I disagree with that. It's a nice, complex wine and I love the marriage of oak to fruit, but I don't think it's going to age. It doesn't have the fruit to stand up to that tannin.

Berglund: This seems like a much younger version of the '68 Beaulieu. They're very much the same.

Burnap: This was the first one that seemed to have stems.

Test: It had a lot of extract and not much fruit, kind of ponderous.

Comments after the unveiling:

Burnett: This was the first time Beaulieu bottled a Carneros with 100% 'Carneros' on the label. Being a drought year, it had the intense character that we felt was the essence of Carneros. We didn't fine it as much as we have in vintages since, because we wanted to be sure to capture that character.

Martini: It has that mintiness I associate with Carneros that always seems to develop in the bottle.

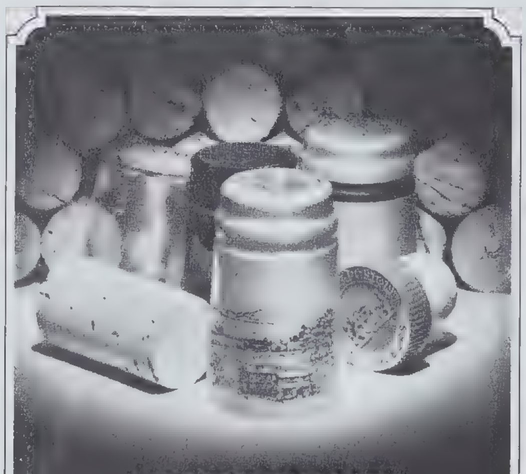
Richmond: What's the fermentation temperature on this?

Burnett: 80 °F with no stems. We have open-top stainless steel fermenters, and since we can't punch-down with the volume we have, we spray it over the top, twice a day.

Color: inky

Aroma: musty, cheesy, mushrooms, delicate cherries, V.A.

Flavors: American oak, slight cola-mint flavor, chalky, cedary, tarry,



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ENO-QUIPS

by
gerald weisl

You can have the Pinot Noirs, but please don't touch the Napa Cabernets stemmy, no fruit

Balance/Finish: medium-light body, harsh tannins, astringent finish

1979 Beaulieu Vineyards, Los Carneros Region, Napa Valley

Comments before the unveiling:

Martini: I don't think this has even thought of marrying yet. It's very youthful, but still unincorporated, still made up of distinctly different components.

Brown: It had good potential, but I wish it had more concentration.

Martini: I wrote 10-12 years. It's a simplistic kind of fruit that I think will pick up a tremendous amount of complexity with time. The tannin is all there with enough fruit to stand up to it. I liked the structure and mouth-feel of this wine.

Test: I agree it has nice mouth-feel, but I was disturbed by the dominance of a vanilla-oak note in the nose. The acid is nice, but I'd rather see less vanilla and more fruit.

Burnap: Some good things can be said for the first four wines, but there is not much varietal character. They are more like good, California red wine.

Richmond: They'd probably have all been better if picked two weeks earlier.

Burnap: This wine has the same kind of cooked quality that the '68 had. It's good red wine, but not typical Pinot.

Richmond: It's typical for Pinot made in that style. That's the old California style of very ripe, hot climate grapes.

Martini: I completely disagree with both of you – you're way off base. After watching forty years of Carneros Pinot Noirs I have to say this is very typical Pinot fruit, what you get in the tank as juice. Pick from 21.5-24°, and there is a tremendous difference in the finished product, but that character is what I get in my tanks every year.

Burnap: I'm not saying it didn't come from Pinot Noir grapes, I'm sure it did. But if these four wines were in a blind tasting with Pinot Noirs from all over the world, they'd be the last ones I'd pick out as being Pinot Noir. They're not identifiable as Pinot Noir.

Martini: It depends on your point of orientation. Having grown up on this type of Pinot Noir, this is what I would pick out as Pinot Noir.

Comments after the unveiling:

Neel: Steve mentioned the vanilla character. Was this in new cooperage?

Burnett: Yes, a larger percentage than previous wines. I got a strong Carneros character from this wine. We make three Pinot Noirs now: the Carneros, the Beaumont – which has a large percentage of Carneros grapes, and our Beau Velours – which has some Petite Sirah in it. In this vintage, I actually prefer our Beaumont.

Color: light red

Aroma: toasty oak, cherries, coffee, chocolate, stems

Flavors: cooked fruit, oaky, stemmy, one dimensional, some V.A.

Balance/Finish: medium-light body, light tannin, tart finish of moderate length

1979 Frick, Monterey County (Ventana Vineyards)

Comments before the unveiling:

Martini: Too many stems. I've noticed that a high level of stems really reduces the fruit in the nose and I get that in here.

Richmond: It had an herbal quality to it.

Brooks: It has an almost meaty character.

Frick: It has a smokey, earthy, mushroomy spiciness.

Burnett: It was light and had a lot of tannin, but not a lot of depth. But I enjoyed tasting it now.

Martini: I think this wouldn't be bad at all with food.

Burnap: Are we in agreement that the first four are all in a style and this one another style?

Brooks: I think this one was similar to the first four. I wouldn't mistake this for a Burgundy.

Comments after the unveiling:

Neel: What about the use of stems?

Frick: We used about 75% stems.

Test: I got some of that cola/root beer nose that some of the Carneros ones had.

Brown: Did you leave the wine in contact with the lees in the barrel?

Frick: No, we cleaned it up real fast.

Color: light cherry

Aroma: smokey, floral, spicy, herbal, French oak, root beer, mint

Flavors: lean, hard, delicate fruit, smokey, humus

Balance/Finish: medium body, light tannin, firm acid edge, chalky tannic finish

1979 Calera, Jensen Vineyard

Color: medium ruby, slight cloudiness, a little brown on edges but not excessively aged

Aroma: wood, toast, leather, dusty, perfume

Flavors: Burgundian style, not intense in fruit, good acid

Balance/Finish: sharp finish, bitter, tight

1979 Calera, Selleck Vineyard

Color: dark ruby

Aroma: spicy

Flavors: spicy, agressive, Bordeaux style, oak dominates fruit

Balance/Finish: tannic, astringent, hard

1980 Acacia, St. Clair Vineyard

Comments before the unveiling:

Martini: I liked the balance of fruit and wood, texture is nice and soft, a well-structured wine, finish is harsh because it's too young.

Burnap: It had a little ethyl acetate, but it had good Pinot Noir character that I've come to associate with Acacia. I liked everything about it, but it was just a little bit tight.

Martini: That's going to develop with time.

Richmond: It is gingery/spicy on the nose. We're hypothesizing that it might be correlated with warmer fermentation temperatures.

Brooks: Grapes contain a phenolic called gingerol, which I think is indicative of the taste. I also got a leathery character out of the wine.

Test: It's a sharp, almost ungraceful Pinot Noir character, almost too sharp. The structure is there, and I think it has the potential to develop into a lovely wine.

Frick: It had a hemp-like character in the nose.

Berglund: It's rich and full but not dense, not clumsy. I associate that spice characteristic with Carneros.

Brown: Components are excellent, but if you were to fine tune it at all, I'd adjust to see a little more extract.

Comments after the unveiling:

Brooks: Some people have described this as stemmy, but there are no stems, it's just what's in the fruit. It's fairly low alcohol – 12.6%. Somewhere around 13%, you lose that minty delicacy, at least in this vineyard.

Color: plum purple/red

Aroma: herbal, leather, ginger, floral, hemp, plummy, stemmy

Flavors: very clean, light cherry/berry fruit

Balance/Finish: medium-light body, light tannin, firm acid, creamy, clean tart finish

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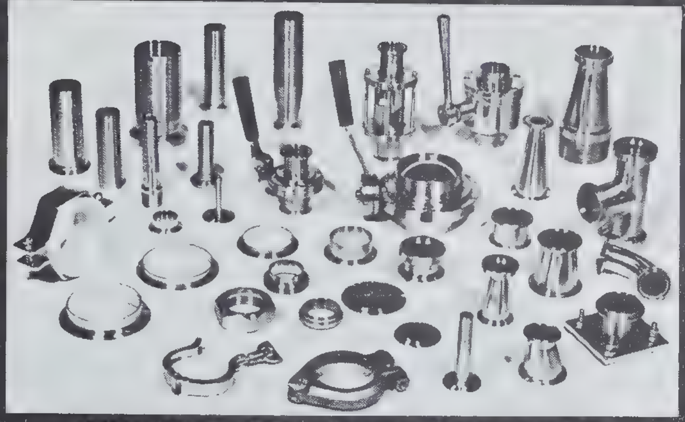

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1980 Santa Cruz Mountain Vineyard

Comments before the unveiling:

Brooks: Again, a real deep purple color, with a bright edge which indicates a healthy pH/acid balance.

Martini: I got high V.A. on this one.

Richmond: It has sweet V.A. that will become interesting as the wine softens up.

Brooks: It's not offensive V.A.

Martini: I can't get around the V.A. I wouldn't consider that a style, I'd consider it a fault.

Burnett: If this wine could have been made without the V.A., it could have been really exciting.

Brown: It's big and chalky.

Clemens: Of all the wines we've tasted so far, I thought this was the least varietal. It seemed like Petite Sirah.

Martini: It's the spiciness.

Berglund: The color is atypical.

Test: I don't like that color. It's too blue, and that indicates a high pH wine. This is a style of wine I really don't care for.

Martini: I wrote the acid is too low.

Burnap: Did I understand you to say that blue indicated a high pH?

Test: It would indicate a high pH to me.

Brooks: It's too bright to be a high pH.

Burnap: Blue always indicates to me a low pH.

Clemens: It also had higher alcohol.

Brooks: The alcohol was my major objection to the wine.

Comments after the unveiling:

Burnap: pH at harvest was 3.1, pH in the finished wine is 3.2. Acidity was 1.1 when it was picked, but it ended up lower than I expected because of an extraordinarily high malic content. Alcohol is 15.6%. I brought this one because I thought you'd get a kick out of it.

Martini: Did you run a V.A. on it?

Burnap: Yes, it has more ethyl acetate than V.A.

Color: plum purple

Aroma: strong cassis (also cherry, blackberry), tarry, jammy, sweet V.A., oaky vanillin

Flavors: big, ripe, grapey, chalky

Balance/Finish: medium body, good acid, hard tannic finish

1980 Frick, Monterey County (Ventana Vineyard)

Comments before the unveiling:

Brooks: This is very varietal, but toward the vegetal end of the scale.

Test: Great acidity.

Martini: I'd really like to see this wine in ten years, to see how it develops.

Brooks: I hate to fault a wine for having too little tannin, but I thought it could have used more.

Martini: There was a real even tannin distribution, it was mouthfilling, and I think it has really good potential.

Burnap: I thought this had the best acid of all the wines we've tasted so far. It's easily identifiable as Pinot Noir, and I loved the balance.

Brown: I agree with that, only I thought the oak was a little high.

Comments after the unveiling:

Neel: Were there more stems in this than in the '79?

Frick: No, the berries were very small, some smaller than peas that year, so we pulled off all the stems. It went into the same barrels as our '79.

Color: medium-deep ruby

Aroma: emphatic varietal definition, rich herbal, rubber, dead flower, leather, licorice, fennel, tobacco ash

Flavors: smokey, spicy, moderate oak, good depth

Balance/Finish: medium body, silky, moderate tannin, fine acid balance, high V.A., tart bitter finish

1980 Carneros Creek Winery

Martini: This was my favorite of the '80's. It has that smokiness, that leathery quality.

Burnett: It was really well-balanced.

Brooks: It was a little too tannic for me.

Martini: I think about 8-10 years from now this will be very nice.

Color: deep ruby

Aroma: big, earthy, cherry-vanilla, smokey, dill

Flavors: quite a bit of fruit, slight vegetal background, harshly tannic

Balance/Finish: light body, chalky, tannic, tart astringent finish

1980 La Crema Vinera, Ventana Vineyard, Monterey

Comments before the unveiling:

Burnap: This was similar to the '68's—cooked.

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Burnett: Vegetables.

Clemens: High pH.

Frick: I'm surprised this is an '80; it seemed to be quite a lot older.

Brown: There was some nice cellar complexity.

Clemens: This had all those components of complexity without the fruit. It had the complexity you expect to develop with age and is inappropriate in a wine this young.

Comments after the unveiling:

Berglund: I pulled this off a retailer's shelf, and I'm worried about how it was kept. It's prematurely aged. The grapes are from the same vineyard as the Frick. We used about 65% stems that year.

Color: murky brick red, greyish tint

Aroma: herbal, leathery, cedar, chocolate, cooked

Flavors: no fruit, salty, rich truffles, leather

Balance/Finish: light body, light tannin, adequate balance, moderate finish

1980 La Crema Vinera, Winery Lake Vineyard

Comments before the unveiling:

Burnap: perfumey, spicy, fragile, lovely.

Brown: My favorite of the group, the perfume is just elegant.

Brooks: The nose is very charming.

Burnett: This had the nicest Pinot Noir character.

Martini: The acid was too low and there was too much astringincy for the fruit.

Brooks: It's a shame that the taste doesn't deliver what the nose promises.

Test: I didn't care for the nose; it was eggy at first. And it was too astringent, too flat, too watery in the middle, and there aren't enough fruit flavors. This is a typical high pH Central Coast sort of wine.

Comments after the unveiling:

Berglund: These grapes came in at well over 1.0 TA, low pH. It finished below 3.6 pH. This was a separate lot fermented on wild yeast.

1981 Louis M. Martini

Comments before the unveiling:

Martini: Straight-forward, simple, Beaujolais style, good restaurant wine. It's not sophisticated, but it's pleasant.

Brooks: No evident wood.

Frick: It had a lot of strawberry fruit.

Burnett: I thought it was a little rough for a Beaujolais style.

Test: I think a lot of '81's are going to be in this style. This one has complex but very delicate flavors, and I think it has some potential to develop yet.

Martini: Especially since most of these '81's aren't in the bottle yet.

Comments after the unveiling:

Martini: I brought this as a style indicator. It's made to be a $5.00 Pinot Noir. It spent 11 days on the skins, with 10% stems, and it's a 50,000 gallon blend of five ranches, about 90% Napa Valley (half Carneros). 10% is from Healdsburg along the Russian River. It's designed as a restaurant wine, and in the next flight you'll see what I designed for playing around with. With this wine we do about 8% of the Pinot market in California.

Color: light ruby

Aroma: light strawberry-cherry, candy apple, carbonic character

Flavors: very clean, delicate flavors, soft, fresh, candy apple fruit, no evident wood

Balance/Finish: medium-light body, light tannin, good balance, moderate fruity finish

1981 Acacia, Lee Vineyard, tank sample

Comments before the unveiling:

Test: This is a chip off the old Acacia block.

Clemens: I got a bacon-like character in the nose.

Burnett: I think it has potential.

Martini: I don't think it does; it's overall too soft. It'll be really nice in 3-5 years, but it won't go longer. Oak is a little overbearing in the nose, but it has a nice mouth.

Comments after the unveiling:

Brooks: This was an experiment we didn't necessarily want to make. We expected to take about 20 tons from this vineyard, and we ended up taking all of it—about 60 tons. We didn't have the cooperage for it, so it sat in stainless until the early spring on its lees. We had to order more wood, and so it had to go into a higher proportion of new wood. To compensate for that it spent less time in wood. Normally they spend about 10 months in wood, this spent about six months.

Color: brilliant ruby

Aroma: delicate fruit yet rich, clove, ginger, cinnamon, vanilla, burnt bacon

Flavors: soft new oak and fruit, ginger, cinnamon

Balance/Finish: medium body, medium-light tannin, good acidity, long astringent spicy finish

1981 Santa Cruz Mountain Vineyard

Comments before the unveiling:

Brooks: This is the blackest Pinot Noir I've ever seen.

Burnett: This is fun and interesting to taste, but I don't know why anyone would make this style.

Martini: I get the feeling it's going to throw a tremendous precipitate in the bottle.

Brown: They're aren't any cooked flavors.

Brooks: No, it's just dense.

Martini: It's astringent and the fruit isn't up to it. I don't think it's going to age; I think it will just fall apart.

Burnett: I do too.

Brown: I think there is a lot of development potential. The wine is really heavy, almost tar-like in the nose, but it has a nice acid/pH structure. This is going to be a long-lived wine.

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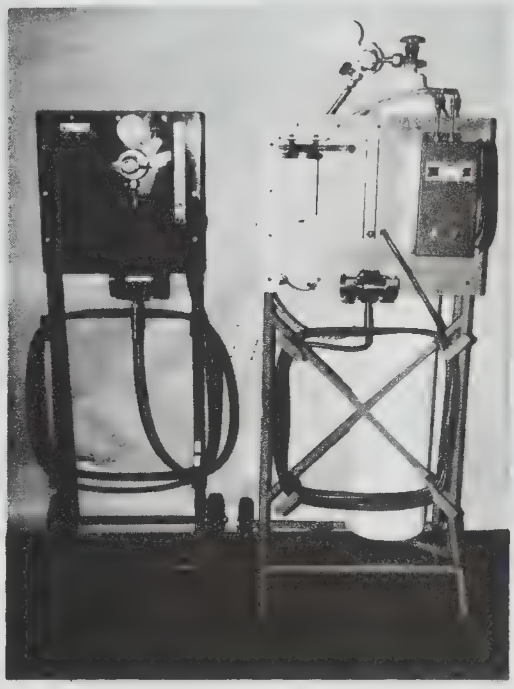

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Brooks: Since this is a style discussion, let me ask, 'Is this a valid style for Pinot Noir?'

Burnett: Is this an experiment, or is this something you really want to do with Pinot Noir? Would you want people in the marketplace to pick this up and say it's a wonderful Pinot Noir?

Martini: I don't think you could sell very much of this.

Berglund: I think the average consumer who is buying a Pinot Noir over $8.00 a bottle is looking for something that knocks them over. This is what they want. There is a market for it.

Comments after the unveiling:

Burnap: This is a barrel sample. It has all sorts of peculiar odors in it that will not be in the finished wine. It's 13.4% alcohol, acid was 0.9 when picked and pH was 3.2. It's in the middle of malolactic right now.

Neel: '81 and it's still going through malolactic?

Burnap: Yeah, that's a problem I have with my wines; they usually don't even start in the first year.

Burnett: So you're not inoculating for ml?

Burnap: No, malolactic usually starts in April of the second year it's in the cellar.

Burnett: Do you feel that's important to your style?

Burnap: I do. I prefer to keep them dirty for quite a long time. When they are cleaned up, I feel I get complexities that I wouldn't get if I cleaned them up early.

Richmond: I'd try some severe fining trials on this just to see what you can come up with.

Burnett: I picked up some V.A. and ethyl acetate. Is that something you're going for, in your style?

Burnap: It's a function of Pinot Noir when it's fermented the way I ferment Pinot Noir (very high temperatures in open top tanks).

Brown: How long was the skin contact?

Burnap: 21 days.

Richmond: What's interesting is that you can get that power and intensity with just 13.4% alcohol, which makes it in yet another style. It's not a late harvest style.

Burnap: I'm working my way reluctantly toward 12.6% alcohol. I'd like to retain the intensity with a lower alcohol, if that's possible.

Color: opaque

Aroma: peppery cassis-berry, overripe blackberries

Flavors: porty, chocolatey, tarry, cinnamon

Balance/Finish: medium body, fruit in balance with excellent acidity and pH, very tannic, astringent musky finish

1981 Carneros Creek Winery

Martini: The mouth was big, compared to the nose.

Brooks: This has strong Pinot character; it couldn't be anything but Pinot Noir. The palate is a little harsh right now, but not excessively.

Burnett: I don't think it's a finished wine, but it's a nice young Pinot Noir.

Brown: I'd be worried about the bitter finish.

Berglund: I liked the nose; it's sort of a rose-petal/cherry character with a little spice behind it. It's different than that earthy-truffley type of nose. I thought the flavors were analogous to the nose.

Martini: I don't think it's going to be long lived, but I think in about five years it's going to really open up and be a very good wine.

Burnap: Very similar to the Acacia, Lee Vineyard, but even more so.

Color: deep ruby

Aroma: rose petals, cherries, pepper, negligible if any oak

Flavors: rose petals, silky cherries, pepper, slight mint, youthful

Balance/Finish: medium body, light tannin, good acidity, tart, slightly bitter finish

1981 Domaine Laurier, tank sample

Comments before the unveiling:

Brooks: If I didn't know better, I'd say this is an Oregon wine, and that's not to belittle Oregon wines. I think I've finally learned a lesson; you don't have to have dense color to have a nice Pinot Noir. This one is smokey, smooth, has nice balance.

Burnett: If you closed your eyes and just tasted it, you'd never know the color was so light.

Richmond: I would not bottle as murky as this. When the color is this light it has to be pretty or it wouldn't be marketable.

Frick: This has a nice smokey, herbal character that reminds me of Monterey.

Martini: It's nice and full, more of a now wine to be consumed in the next couple of years.

Berglund: With the exception of Burnap's wine, I think most of the '81's are going to be like this one. All of our '81's were like this.

Brown: It was hot in '81?

Berglund: Yes, a hot summer. We brought in some grapes in August.

Martini: I don't know how acid plays on color. We bloomed out two weeks early and picked at least two weeks early (our earliest harvest in 50 years), and in doing so the light days didn't coincide with the heat and the development of the vine. The malic acid increased tremendously.

Brown: We had a very early bud break and a very cold season and average colors. It was the second coldest year we've had, but because of the very early bud break, it was the earliest we've ever picked.

Comments after the unveiling:

Test: This is a tank sample. We didn't use stems. It was kept in the tank a week past dryness. To me it has a little too much French oak. I brought this one because this is the direction I want to be going. It's light, but that's because of the vintage. If I could make everything this way, I'd be thrilled to death.

Brown: Where is the vineyard?

Test: Green Valley. It's a sub-appellation of Russian River Valley, real cool, though '81 was a warm year. We tend to have a kind of minty character in this vineyard.

Burnett: This reminded me of Carneros.

Test: The main thing is that it's foggy in the morning and it cools down at night, as low as 48°F.

Martini: Very similar climate to Carneros.

Burnap: Absolutely marvelous Pinot Noir aromas.

Color: very light ruby, hazy

Aroma: buttery, floral perfumey, smokey, very lightly herbal

Flavors: full middle palate, coconut, spice

Balance/Finish: medium body, creamy, fine acid, light tannin, extremely long fruity finish

1981 Beaulieu Vineyards, Los Carneros, Napa Valley

Comments before the unveiling:

Burnap: It has a strong eggy-tea aroma. I'm anxious to see where it comes from, to see if there's a corollation between the appellation and this tea-like character. I find it often in wines, but so far I've found no corollary.

Martini: It seems more South Central coast. Santa Maria fruit often has that green tea character.

Clemens: It has a new resinous oak character, almost evergreen quality.

Brooks: It's got nice sweet fruit, but it's maybe a touch low in acid.

Test: I thought that American oak dominated the flavor and overpowered the fruit.

Comments after the unveiling:

Burnett: This is from Carneros. It's in redwood and in barrels. I made up a hypothetical blend here. We're not putting in stems.

Color: brilliant ruby with blue hues

Aroma: new American oak aroma, cheesy, rose petals, green tea

Flavors: light but not thin, delicate cherry-like fruit, green tea overtones, melded oak and fruit

Balance/Finish: medium body, no tannin, silky slightly thin, bit low in acid

FLIGHT FOUR—1982 PRODUCTION SAMPLES

These were tasted blind, but discussed after all four were revealed.

1982 Zaca Mesa, production sample, punched down

Martini: This was a fascinating wine. There are a lot of things going on here.

Burnap: The two are radically different. I liked this punched down very much, but the pump-over had some varnish-like quality in the finish.

Brown: These two lots were part of a controlled experiment. The grapes were from the same vineyard picked the same day. TA was 1.24, pH 3.25, and sugar 23.7° Brix. Only difference is that the punch-down was in a small open top fermenter 6.5 feet in diameter by 6 feet deep, and the pump-over lot was in our typical closed top fermenter. Both lots were held at the same temperatures (the cap would get into the upper '80's and the juice in the lower '80's). Both of these samples finished out malolactic in older Francois Freres barrels, were racked, and have been in barrel on high solids. The only difference is in the management of fermentation. I was startled by the difference.

Clemens: Which do you prefer?

Brown: Punch-down. It's not as accessible now, but I think in the long term it's going to be better.

Richmond: When you pressed, did you notice any more mud in one tank than another?

Brown: Yes, the open top was still murkier. pH was a little bit higher in the punched down wine.

Richmond: Are these virus-free clones?

Brown: No, the heat treated virus-free wood seems to give bigger clusters, bigger berries and defeats the purpose of Pinot Noir. The clonal selection in this vineyard has very small berries, and a yield of about 1-2 tons. 1982 was our second lowest crop level, about 1.25 tons/acre.

Neel: Have the rest of you had the same experience with virus-free clones?

Brooks: Virus-free clones are so much more vigorous that it's hard to stress it. The vine responds well to stress, and the nice thing about virus is you have built-in stress, it intensifies the flavors.

Martini: Bernard Portet talked me into doing different rootstocks for Merlot in high nitrogen soils to compensate for the assimilation problems, and I think we ought to look toward the same kind of program with Pinot Noir.

Brooks: Burgundians I've talked to, seem to think the real key is matching rootstock to the budstock and soil.

Color: very purple

Aroma: ml stink, herbs, licorice, tobacco ash, green tea, alcoholic

Flavors: rich, soft, vegetal, almost sweet cherry-berry fruit, emphatically varietal

Balance/Finish: medium body, needs acid, moderate tannin, astringent finish

1982 Zaca Mesa, production sample, pumped over

Color: deep ruby

Aroma: herbal, vegetal, peppermint, spice, green tea

Flavors: flavors analogous to the nose, with bitter varnish component in background

Balance/Finish: medium body, moderate tannin, very good acid, mouthwatering finish

1982 Louis M. Martini, 'Las Amigas Vineyard', Carneros, Napa Valley

Martini: I had a lot of fun with this. I used a 40-ton fermenter, added back about 10% stems, it had a nice even 7 day active fermentation, went another 6 days floating the cap. I put in 2% whole berries with the stems. It went through malolactic in about two weeks, and then went into Troncais French oak, and this is straight out of the barrel. It's never been filtered, never had an acid adjustment.

Clemens: How many acres do you have planted there?

Martini: We have 140 in Las Amigas, and 210 in La Loma. I did the same thing with La Loma fruit and it's altogether different, with a lot of chocolate character.

Burnap: As a word of encouragement, I hope you try this on a larger scale, because I found this exciting wine.

Martini: I throw the wines into several categories. I produce between 20-25,000 cases a year for the restaurant trade, wine that isn't meant to be aged. This wine would be too expensive to hit my price range for the restaurant wine. So now I've created a vineyard selection wine, where the wine has to be representative of the vineyard. I feel that this show the Las Amigas Vineyard very well.

Color: very deep ruby

Aroma: jammy, spicy, strong cherry character, very Zin-like

Flavors: candy apple fruit balanced by oak

Balance/Finish: light body, light tannin, well-balanced, mint and oak finish

1982 La Crema Vinera, Vineburg Vineyard, Sonoma

Burnett: I was concerned with the color; it's already browning.

Richmond: That could be a pH adjustment.

Test: It seems very, very fragile. It has that combination of that minty-cola-leather components. It seems older than an '82.

Berglund: One of the reasons I brought this, is that as much as I like the vineyard and like the wine, there is some question in my mind whether it tastes like Pinot Noir or not. There was a distinct minty character in 1981, so last year I went out in the vineyard and tagged bins in different sections of the vineyard as the pickers were picking. The interesting thing is that there is a row of eucalyptus along one edge of the vineyard, and they hadn't trimmed the trees back in '82 and there is a distinct progression across the vineyard from one side to the other that the closer you got to the eucalyptus, the more intense the mint became. Wine made from grapes right next to the trees was like drinking pure eucalyptus extract. This is a component blend of various parts of the vineyard. I'm absolutely convinced that the mint is from the eucalyptus. It raises some questions—is this a varietal character? Do you want this in wine? If so, it's easy enough to adjust. Do you want classic Pinot Noir, or do you want mint?

Burnap: I'll cast my vote. I don't like that menthol-eucalyptus character in any wine. Joe Heitz's '68 Martha's Vineyard is one of the more disagreeable wines I've had.

Color: cloudy, browning dark red

Aroma: mentholyptus, overripe, herbal, rich rotten Pinot Noir aroma

Flavors: eucalyptus, lavender, V.A., oak

Balance/Finish: medium-full body, low tannin, velvety, slightly low in acid, moderate fruity finish

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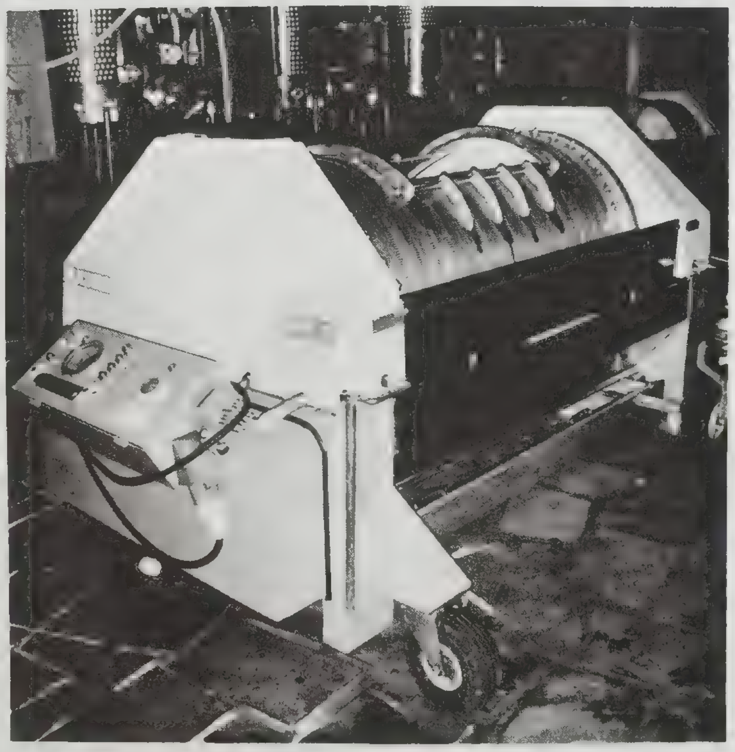

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STERILE BOTTLING

By Robert S. Scott

Recently, the editor of **PRACTICAL WINERY** discussed his trip through the Pacific Northwest. He was concerned that wineries producing wines with residual sugar felt the need to hold those wines for a considerable period of time before release. Many Washington, Oregon, and Idaho wineries are producing excellent wines in the German tradition with residual sugar. They were doing this to "assure" there was no secondary fermentation.

We believe that holding such wines for anything longer than necessary to get them sold, not only hurts cashflow, but also can be hurtful to the freshness which is often desirable in such wines. It is also less than 100% effective in preventing fermenting wines from reaching the market. Finally, it is not necessary!

In addition to expressing concern for the economic well-being of his constituency, the Northwest winemakers, the editor also had a personal complaint. A bottle of Riesling which had been kindly given him by one of the vintners, 'blew its' cork' while on the back seat of the car, and covered not only the seat but many of his notes and working papers with sweet and increasingly sticky liquid.

The editor was unhappy, perhaps he would have been even more unhappy had he been a regular customer who had paid good money for the experience.

There are a dozen or so trite phrases which describe the problem and the solution. These must be heeded by **every** winery, but they become vital when wines with residual sugar are being produced.

Three aphorisms come to mind: "Sanitation is a way of life", "There is no free lunch", and "Constant vigilance is the price of safety".

After I read an article by T.J. John, "Sterile Filter Myths and Fables", I wrote a letter to the editor of **PRACTICAL WINERY** which was published in the July/August edition. All of the comments there apply to this discussion.

The practice of holding wine for 2-3 months does reduce the chance for infected wine to get into the channels of trade. But, it does not eliminate the problem where the yeast infec-

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Sluggish and Stuck Fermentations

By Don Blackburn
Three Points of View:
University of Bordeaux, France
University of California, Davis, CA
Robert Mondavi Winery, Oakville, CA

"So that a fermentation will be complete, one should act in such a way that the highest possible proportion of yeasts remain living and active up until the total depletion of fermentable sugar."

The above passage comes from **Sciences et Techniques du Vin**, by Jean and Pascal Ribéreau-Gayon, Emile Peynaud, and Pierre Sudraud. The preceeding approach is generally accepted throughout the world, but opinions vary on the best way to build and maintain that population. The four-volume Ribéreau-Gayon work concisely describes the French point of view:

"Yeasts need oxygen for their multiplication . . . Aeration of the must during crushing and pumping is helpful, but insufficient . . . Headspace of a large tank does not furnish an adequate supply of oxygen. One should aerate by means of pump-overs (the must splashes into a tub before being pumped).

"This operation is the most effective on the second day after the beginning of the fermentation, at the time when cellular multiplication is at its maximum. Interventions 6-8 days into the fermentation are of insignificant benefit. Moreover, aeration of the must before fermentation has little effect. It is the multiplying yeast population which should be oxygenated, and not the liquid itself.

"The grape's bloom contains substances capable, in the laboratory, of permitting a yeast population growth in completely anaerobic conditions . . . but it doesn't preclude stuck fermentations in practical winemaking situations."

Dr. Roger Boulton, Associate Professor of Enology at UC Davis, CA, has been studying sluggish fermentations for some time. He has been able to eliminate the following purported causes of sluggish fermentations:

1)Varying behavior of yeast strains: this has not been found to be a factor.

2)Sulfur Dioxide: free SO_2 disappears soon after the beginning of fermentation. Total SO_2 does not inhibit yeasts enough to cause a sluggish fermentation.

3)Botrytis cinera: it's only role is to rob some of the grape's nutrients. Recent studies do not show it's by-product—botryticine, to be an inhibitor, despite previous impressions.

4)Oxygen: while indispensable to the yeast, oxygen is not the culprit in problematic Chardonnay vinifications. A senile yeast population cannot be rejuvenated by oxygenation if it falters at 12% alcohol. Such action favors bacterial spoilage. The best time for aeration is before inoculation. Dr. Boulton is, on this point, in disagreement with the French. He does not feel that oxygenation several days into the fermentation is wise. The starter does not need aeration either.

5) Prolonged settling: substances contained in the solids eliminated by pre-fermentation settling play a role in the wine's flavor, but are not considered essential nutrients.

6) Vitamins: No vitamins have been found lacking in musts experiencing sluggish or stuck fermentations.

Boulton's conclusions are: Although research has not yet yielded a complete understanding of the problem and its solution(s), one precaution in particular seems useful. To maximize the size of the yeast population, winemakers should use inocula of 5% rather than 2% as generally recommended.

Two other factors deserve attention. First, is the role of trace metals, such as calcium, copper, cobalt and manganese.

tion is low, where the bottles are held quiescent under cool conditions or where free SO_2 at time of bottling is reasonable and the infecting yeast had not been previously conditioned to SO_2.

Wine can appear sound after three months by sensory examination and yet can become cloudy, or under bad conditions, blow the cork by the time it gets to Honolulu or Bangor, Maine or wherever the end of the line is.

During shipment, bottles are agitated and are warmed and the 'critical mass' necessary for active fermentation may occur. Even if fermenting bottles are found in the winery, the process of opening, dumping, and refilling is costly and has the potential for ending with a wine somewhat different from that originally desired.

Back to the trite phrases, if there ever was a case where an ounce of prevention is worth a pound of cure—this is it. In addition to a good prevention program a sound check-up program should be instituted.

In times past, wine and bottle—everything—could be sterilized after the bottle was sealed. Such pasteurization is still used for strong flavored products like Asti Spumante and products where a customer has been accustomed to the flavor, such as beer. The amount of cooking required to sterilize bottle and contents has become unacceptable for delicate wines.

Sterile bottling is a viable alternative. Sterile bottling is not expensive in dollars, but it does require planning and concern for the winemaker and everyone working in the winery.

Sterile filtration is the first step. Procedures for this are widely available from every responsible filter sheet and/or membrane producer. If membranes are used, they must be proceeded by filter media which perform 99.9% of the work and then must be bubble tested before, during and after each day's run.

If the membrane fails the bubble test, everything produced between that and the previous test is suspect and the wine should be checked as indicated below.

If membranes are not used, sterile filtration can be achieved with responsible sterile filter sheets such as Scott SY or equivalent. Throughout the run, maximum flow rates must be rigorously observed.

If a filter requires sheets with internal holes, close attention should be paid to insure that there is no bypassing of the sheet in the vicinity of the holes. The final filter, be it sheet or membrane, must be sterilized before each bottling run.

Finally, at the end of the run, the filterman should take out each sheet and look at the downstream side of it. Sheets, when they come from responsible manufacturers are sound, but this does not preclude their being broken or poked or otherwise weakened on installation or use.

A major source of ruptured filter sheets is back pressure shock caused by no upstream support and rapid closing of valves, shutting off of pumps, pulsation of pumps, etc. In any of these cases, chances are good that an experienced eye looking at the used sheet will see the flaw or a dark line. He should immediately alert management to embargo the lot until suitable checks have been made of the bottled wine.

Every square millimeter of material in contact with the

The role which these elements have in the maintenance stage is not known. Second, is the influence of plant hormones on the nature of the yeast population or on amino-acid uptake.

The main thrust of research on sluggish fermentations involves the maintenance stage of the fermentation, when the yeast population has reached it's maximum size. This factor has thus far been largely ignored. At Robert Mondavi Winery, Oakville, CA, the research department headed by Rich Arnold has studied fermentation problems in Chardonnay.

Paul Hobbs, a production enologist at Robert Mondavi Winery, reports a summary of the results:

Warm vintages, such as 1980 and 1981 in California, are more apt to lead to trouble, or excessively hot periods during an otherwise cool year. The same applies to grapes which mature later in a given year.

Problem fruit is often from heavy clay or river-bed soils. Such vineyards are particularly wet in the spring. Vine roots near the soil's surface thrive, while deeper roots suffer from asphyxia. Concomitantly, the warmer the summer, the more apt the surface roots are to find themselves in dry soil.

At this point, surface roots wither, whereas the atrophied deep roots are unable to furnish adequate water for the vine's needs. Evapotranspiration is high because abundant spring moisture has favored a luxuriant foilage. As the vine's vascular tissue seeks to draw soil water up to the leaves, the vine experiences a stress which influences its metabolism.

There is an interdependency of the roots and canopy having moisture available throughout the growing season. Overcropping could lead to subsequent dehydration during the late part of the season. Fertilization for strong vegetative (canopy) growth can deplete moisture and stress the vine.

A stuck or slow fermentation may also result from stressed yeast, temperature extremes, weak inoculum, etc. Our studies lead us to feel that these stresses, in part, help explain sluggish and stuck fermentations in Chardonnay. One link between these phenomena, is considered to be the amino-acid—phenylalanine. Arnold has analyzed bottom-land Chardonnay juice for phenylalanine, and has found it comparatively deficient.

Low phenylalanine appears to be an indicator of potential problem fermentations. We have excellent correlation of all our stuck lots showing this deficiency. We are raising the phenylalanine concentration to normal levels in test lots, in hopes of precluding the sluggish or stuck fermentations of control lots during 1983 fermentations. The idea would be to add phenylalanine just prior to the onset of fermentation or to have it available during the yeast multiplication phase. Phenylalanine may simply be one important link, other mitigating factors heretofore not understood may be involved.

Now that the significance of phenylalanine has been demonstrated, the next step is to alleviate the deficiency in the vineyard. In the short run, the methods being developed could soon be sufficiently perfected for use elsewhere to aid in anticipating a problem or to cure a must's deficiency before it causes trouble.

Analysis equipment is very expensive, but the assay can be done by an independent laboratory at minimal cost. If, however, addition of phenylalanine is productive, it would not be expensive. He would prefer that the grape's phenylalanine come from the vine.

We still have considerable work to do before we understand all or most of the implications and ramifications of stuck fermentations and our research will continue, concludes Hobbs.

wine, from before the final filter to the bottle must be thoroughly sterilized. To simplify this, the entire system should be analyzed. All fittings which are not absolutely necessary, should be removed. Get rid of all the extra valves, Christmas tree ornaments, and appendices which are not needed for the proper functioning of the wine transfer and filling operation. Quick disconnects should replace threaded fittings wherever possible. All lines should be made so that they will drain thoroughly and properly with no liquid pockets.

There is an excellent article on sanitation by Dr. George York in the August/September edition of the University of California "Enology Briefs". The author points out that bright surfaces are easily sanitized. Dull surfaces provide cover for organisms. Even such things as hard water can be troublesome.

We prefer hot water as a sterilant. Chemicals, unless they work on thoroughly bright surfaces, can be shielded from the organisms. Steam, thought by some to be most effective, is not only potentially dangerous, but can cause noises. The uninitiated equate sound with sterilization. Don't be fooled!

Yeasts are tone deaf, they are killed only when they have been subjected to enough pasteur units, i.e. heat X time. Since the filler spouts and the other external parts also come in contact with the bottle, they too must be sterilized. We recommend that each filler be fitted with a cup or ring or other device to insure that the hot water not only gets inside the bowl, valve and spout, but also covers the outside.

Certainly hot water costs money, but it can be recirculated through a flash water heater. We recommend that the recirculating hot water be 82°C (180°F) minimum so that all parts in contact with the wine be **brought to that temperature and maintained at that temperature for at least twenty minutes.**

We recommend that be done at night at the end of a run, to prevent organism buildup. That is also a point where time, from the worker's standpoint, is not of the essence. Ideally, the procedure should be repeated before the run the following morning, but if the entire system was properly sterilized and opened while hot to dry the previous evening, a good morning chemical sterilization in accordance with a responsible manufacturer's recommendation is generally adequate.

Under either system, hot water or chemical sterilization before the run, the equipment must be thoroughly cooled and/or rinsed with filtered sterile water. If rinse water is without suspended solids or infection, it can be introduced immediately before the membrane filter, otherwise it should be introduced before the sheet filter.

The bleaching process during cork manufacture in Portugal or Spain makes corks sterile at that instant. Unfortunately, corks are subsequently subject to contamination in the country of origin and in winery atmospheres here. Sterile-finished corks in sterile bags are a must where there is residual sugar. New glass can carry infection, but it is relatively rare. If any infection is even suspected, bottles should be rinsed with an H_2SO_3 solution before use.

Even the air can carry yeast. I recall one time several years ago when a large San Joaquin Valley winery was having spoilage problems. The winery was situated in the middle of vineyards stretching almost as far as the eye could see. Bottling was done in a modern tiled bottling hall. The problem was that the main ventilator to keep the place cool blew directly down over the top of the filler. There was no air filter. For any winery, it would be nice if the bottling room walls be easily cleanable, but the important thing is that the air be filtered sufficiently tight to remove yeast and spores.

If there are bacterial infections throughout the rest of the winery, then the filter must be sufficiently tight to remove down to 0.5 micrometer particles. If then the small bottling room, which needs contain nothing more than filler and corker, is maintained at a slight positive pressure, the chance for airborn contamination is greatly reduced.

Finally, people entering the bottling hall can carry infection. Sterile clothes, foot baths, etc. can be used. We believe that their virtue is 50% to keep people constantly on the alert and 50% to reduce infection possibility.

During the bottling run, filler tubes and spacers should be sprayed with 70% ethyl alcohol (1) prior to bottling and hourly thereafter. Cork jaw locks should be sprayed hourly with 70% alcohol. (1)

If a spillage occurs, it should be cleaned up immediately and the area hosed with a sterile water/iodophor mixture. Any personnel entering the sterile room should do so only after washing and sterilizing their hands.

Heated jaw corkers normally run at 170°F, which is adequate to inhibit organism growth after splash, but it should be remembered that such temperatures are inconsistent with standard parafin lubricant on corks. With heated jaws, siliconed corks should be used.

We believe that the alcohol spray mentioned above is a reasonable alternative to heated jaws. All things listed above are tedious, time-consuming and above all, they require planning and management followthrough. But they are not expensive. Certainly, they are far less costly than two months of retention and/or dumping, refiltering, rebottling or even the anxiety of waiting for the axe to fall.

In addition to prevention, control should also be involved. On high speed lines, a full bottle should be pulled and analyzed every hour. On low speed lines, a bottle should be analyzed from the last part of each day's run.

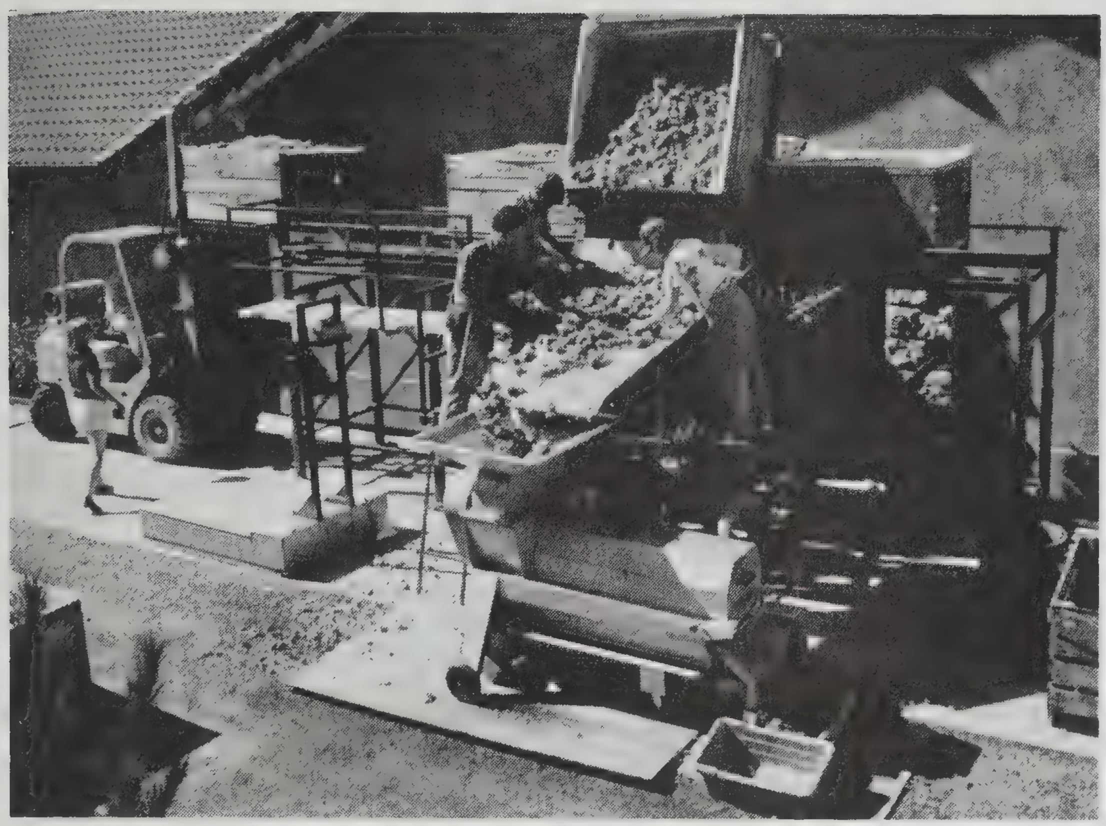
Thanks to laboratory membranes, a sample of several hundred ml rather than just a swab can now be plated. This can be done in- house or at any of a number of reputable labs. During the past several years, routine bottle plating has become an increasing part of our analytical lab's business.

If the sample is clean and was taken so as to be representative of the lot, the entire lot can then be shipped and hopefully, payment received. If the sample is found to be contaminated, reasonable management decisions as whether to a) take more samples to make possible separation of uncontaminated from contaminated product, b) dump and refilter immediately, or c) "damn the torpedoes, full speed ahead" and ship.(2)

If we think that editors don't like wet papers on car seats, neither do paying customers. We would like to see all vintners able to ship a product which they know is microbiologically sound.

(1) Iodophor solution or Isopropyl Alcohol may be used if 70% ethanol presents a procurement problem. Care should be taken that these materials do not get into the product.

(2) In large installations, a detailed 'microbiological inventory' including sterile water, contact plate, cotton swab and product sample tests should be performed on a regular basis by winery staff or outside consultants such as Scott Laboratories staff. For smaller wineries, however, we believe that the pragmatic test of actual product analysis is better since those tests can and will be run on a regular basis. In instances of chronic infection, a microbiologic inventory of equipment and supplies may be necessary to isolate the cause of trouble.



Duckhorn Installs Grape Dump/Sort System

Dan Duckhorn, owner of Duckhorn Vineyards, St. Helena, CA., forklifts a bin of grapes onto a custom-made apparatus installed for the '83 harvest. Tom Rinaldi, winemaker, and crew sort the grapes for MOG ahead of crushing. The apparatus includes a hydraulic conveyor (with forward/reverse controls) to move the bins and a hydraulic ram to tip the bins (which can be stored at any angle). Duckhorn had Herbst Manufacturing of Esparto, CA., design and build the system.

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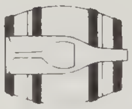

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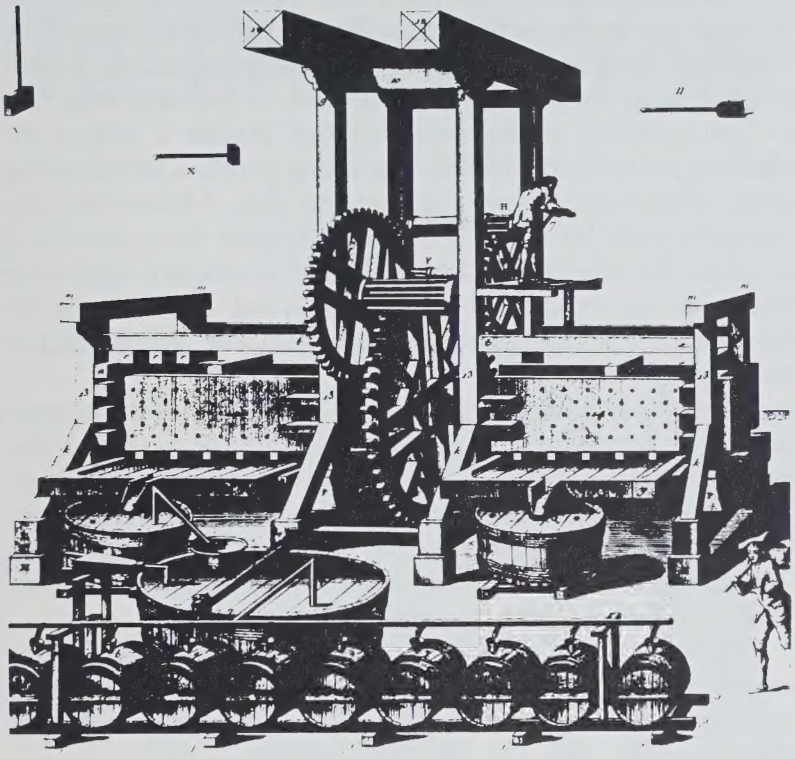
Unique French Vathouse Design



Oeconomie Rustique, Pressoir, from *Encyclopedie,* ed. by Diderot, Paris, 1751-1772. This 18th century Rube Goldberg press design was intended as a labor saving device, and to simplify the many steps of quasi-industrial processes before the age of technology. *Courtesy The Wine Museum, San Francisco*

By Don Blackburn

Every winery operator knows the bothersome aspects of his installation. Both the owner who may one day expand, and the winemaker who may relocate and participate in the planning of a new winery are subconsciously on the lookout for new ideas. Recent construction of a vathouse in Châteauneuf du Pape, France should be of interest.

Henri Brunier, owner of Domaine du Vieux Télégraph describes the basic concept behind the vinification facility:

"While ultra-modern for this region, this installation returns us to the 18th Century method of winemaking. I've gotten rid of the must pump and all the piping. It is only when the grapes arrive in front of the tank that they are crushed, or stemmed, or crushed and stemmed, or poured intact into the tank. It is all automatic."

The building measures 75 feet long, 48 feet wide, 27 feet high at the side walls, and 36 feet high in the center. There are 16 stainless steel tanks of 3,750 Gallons in two rows of eight.

A 26hl pneumatic press travels up and down the center aisle, its wheels guided by grooves in the cement floor. Distance between the rows is such, that the press is positioned to service a tank on either side.

Press movement along the aisle is unencumbered by hoses, because all the tanks' valves are installed on the far side of the tank, away from the pressing lane. Thus, pressing and

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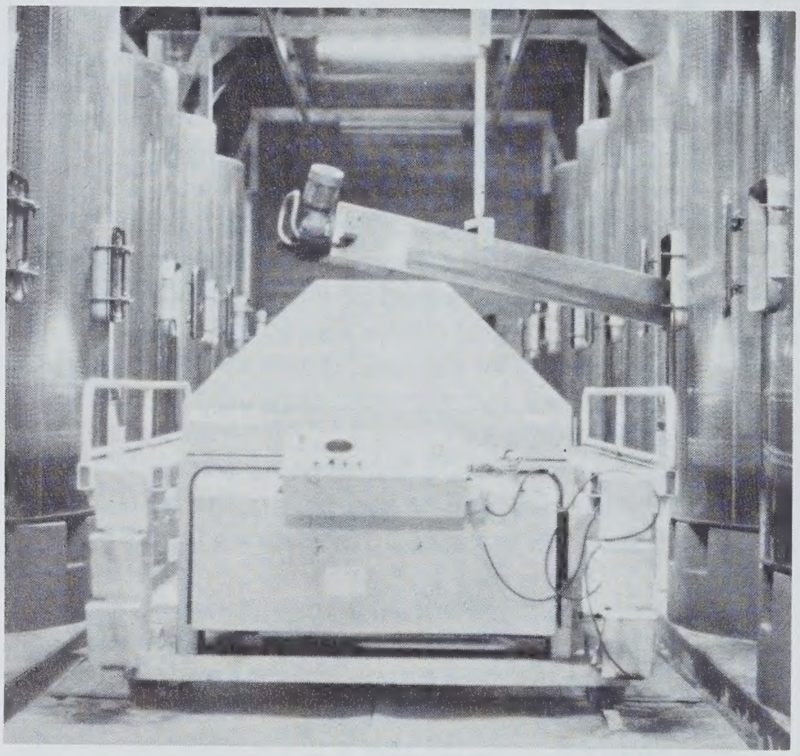
racking operations, taking place simultaneously, do not interfere with each other.

In every winery in which I have worked, one of the constant bothers of vinification is the need to keep an eye on the press pan and prevent overflow. Brunier precluded this from the outset by installing under the pressing aisle, two holding tanks of 2500 Gallons. Wherever the press is located, the hose from the press pan gravity feeds constantly into the tank.



Overhead conveyor positioned to carry pomace from tank to press. photo by Don Blackburn

Grape processing does not interfere with racking and pressing, because it takes place overhead. Transport gondolas are brought up to the receiving station on the uphill side of the building. They are dumped into the filling gondola, which is located in its waiting position next to the doorway.

The operator at the control panel pushes a button indicating the tank to be filled. The filling gondola travels along rails located well above the pressing aisle. Meanwhile, the operator pulls by hand, the double hopper (one side has a crusher, the other is just a funnel), and positions it right over the receiving tank. Each row of tanks has a set of rails for its hopper. The filling gondola, in the middle, is constructed to empty to either side.

By properly positioning the right or left side of the hopper under the gondola outlet (i.e. in the mouth of the tank), the operator determines whether or not the grapes are crushed. Then he returns to the control panel at the receiving station, and activates the auger to empty the gondola into the tank. The stemmer on either end of the gondola can also be activated from the control panel.

When the gondola is empty, the operator returns it by remote control to the receiving station, opens a drain valve, and rinses it. Waste water is routed into the drain on the floor below.

This efficient vathouse is not so much a Brunier invention, as it is an assembling of good ideas which Brunier gathered from looking at other set-ups.

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Barrel Storage at Acacia Winery, Napa, CA. 3-high barrel rack in foreground has a mezzanine for storage of glass and case goods.

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